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Workbook

THE CHOICE IS YOURS, THE TIME IS NOW!



**THE POWER TO
CONTROL YOUR FUTURE**

DBRP

**Defined Benefit
Retirement Plan**

DCRP

**Defined Contribution
Retirement Plan**

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DISCLAIMER



This publication is designed to provide accurate and authoritative information to PERS members for their evaluation of the Defined Benefit and Defined Contribution Retirement Plans. If this publication differs from law or rules as the Public Employees' Retirement Board interprets them, the law or rules will apply. The purpose of this information is to assist members in making their retirement plan election. The retirement plan information and analysis contained herein is based on projections of future investment returns and inflation. Any assumptions or default calculations contained in this publication are based on past performance, which is not indicative of future performance. This publication is offered as an education tool, and is distributed with the understanding that the publisher is not engaged in the rendering of legal, accounting, tax or professional services. Members should make the comparison of the plans within the context of their own personal situations, and may wish to seek competent professional assistance.

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MONTANA PUBLIC EMPLOYEE RETIREMENT ADMINISTRATION

DECISION MODELING WORKBOOK

**The Choice is Yours,
The Time is Now!**

Welcome to your Decision Modeling Workbook! The Montana Public Employee Retirement Administration (MPERA) is providing this workbook as an educational tool in your Retirement Plan Choice materials to help you make your decision:

**Defined
Benefit
Retirement
Plan**

OR

**Defined
Contribution
Retirement
Plan**

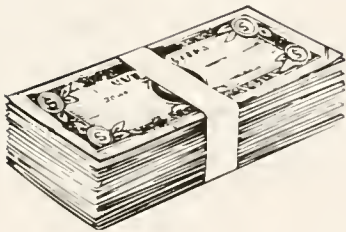


Purpose

The Decision Modeling Workbook is designed to let you compare the plans in connection with your own personal retirement planning. Some members in the Public Employees' Retirement System (PERS) will prefer to remain in the Defined **Benefit** Retirement Plan while others will see an advantage in transferring to a Defined **Contribution** Retirement Plan. It depends!

This Decision Modeling Workbook will allow you to compare your estimated retirement income from the plans. You will be able to calculate your estimated retirement income from the Defined Benefit Retirement Plan as well as your projected Defined Contribution Retirement Plan balance and the estimated income that could be produced from that balance.

Employees of the Montana University System are also eligible for an Optional Retirement Program administered by TIAA-CREF. Nonetheless, all eligible PERS employees can use this Workbook. The modeling projections will generally apply to both the PERS Defined Contribution Retirement Plan and the Montana University System Optional Retirement Program.



One of the major factors in your decision is the level of income produced by the plans.

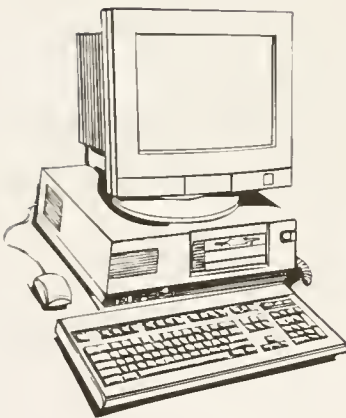
Other factors that affect your decision include your time until retirement, your prior investment experience, and your tolerance for investment risk. Your family circumstances and health condition will also influence your decision. Only **you** can make this decision. The Decision Modeling Workbook and the other education tools in the Retirement Plan Choice Education Campaign are intended to help you make an informed decision.

Other Resources

By this time, you have probably used other tools in the education campaign, such as the Primer Tool Kit and the Video Bookpack. You're acquainted with the choice you need to make, and the process.

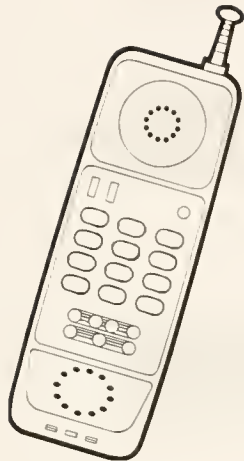
If you were a member of PERS on December 31, 2001, you should receive a **Personal Comparison Statement** showing projections of the amounts you could get from the Defined Benefit and the Defined Contribution Retirement Plans. It will be helpful to keep the Personal Comparison Statement handy as you make calculations in this Decision Modeling Workbook.

You may want to use this Decision Modeling Workbook to model additional retirement scenarios. For example, you may want to calculate your own projections using different assumptions as to your age at retirement, hypothetical rates of return, or projected inflation rates.



On the other hand, you may decide that it's easier to use the **Modeling Software** available on the Web Site [www.MPERAchoice.com]. With the software, you can calculate projections for virtually any scenario you think may happen in the future. If you don't have access to a computer or the Internet, this Decision Modeling Workbook can help you make projections.

You may also receive modeling projections by calling the retirement planning counselors at Educational Technologies, Inc. for support. A counselor can run the projections if you have your Personal Comparison Statement or the basic financial information needed for modeling. You and the counselor can review the results over the phone.



The toll-free number for **ETI**:
(800) 227-0559

MPERA is also ready to assist you with your decision. The staff at MPERA is highly qualified to answer questions regarding the retirement plans, administrative issues, purchase of service, and other technical areas.

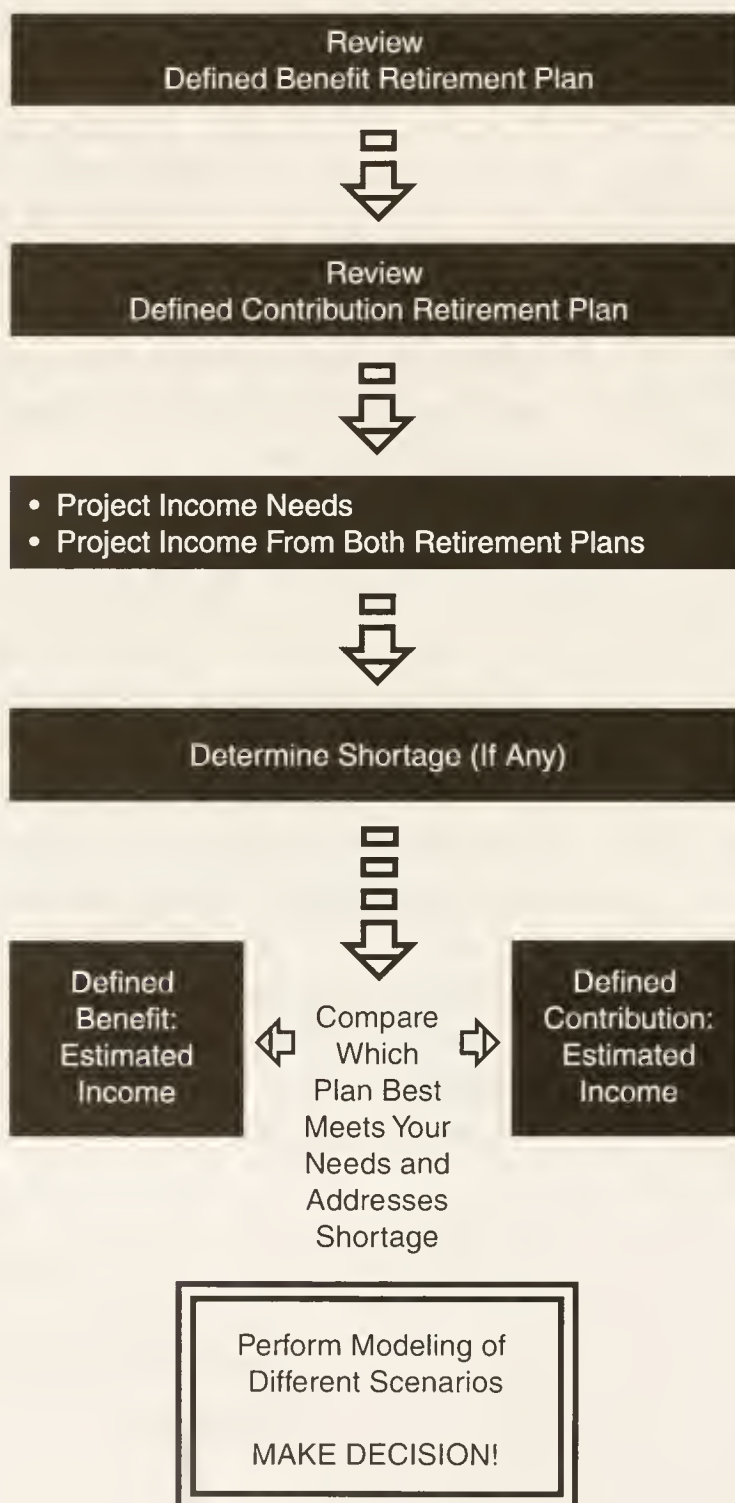
The toll-free number for **MPERA**:
(877) 275-7372

From April 2002 through June 2003, PERS members and their spouses may attend **Group Workshops** conducted by the MPERA and Educational Technologies, Inc. The workshops will present retirement information and provide an opportunity to have your questions answered by experts.

Each educational tool is designed to help you make an informed decision. People learn in different ways. Use the tools you prefer, and give it your best effort. Now, let's get started with the Decision Modeling Workbook!

Important: If you already understand the basics of both retirement plans, you can skip to the section entitled **Retirement Income Objectives**.

Workbook Overview: Flowchart



DEFINED BENEFIT RETIREMENT PLAN: BASICS



It may be helpful to review some of the important features of the Defined Benefit Retirement Plan. You may wish to refer to the Video Companion Booklet for more complete information.

Contributions

Both the employer and the employee make contributions to fund future retirement income from the Defined Benefit Retirement Plan. The current contribution amounts are shown below:

Employee Contributions	Employer Contributions
6.9% of Compensation	6.9% of Compensation

Defined Benefit Calculation

Years of Membership Service	Formula
Less than 25	$\frac{1}{56} \times \text{Highest Average Compensation} \times \text{Years of Service Credit}$ (1/56 = 1.7857%)
25 or More	$\frac{1}{50} \times \text{Highest Average Compensation} \times \text{Years of Service Credit}$ (1/50 = 2.0%)

Highest Average Compensation

Highest Average Compensation (HAC) is the highest average monthly compensation during any 36 consecutive months of membership service, not necessarily the last 36 months of employment.

Membership Service

A member earns one month of membership service for any month in which contributions have been made to PERS. Membership service is used to determine eligibility for vesting, retirement, or other PERS benefits. Membership Service is different from Service Credit.

Service Credit

Service Credit is the number of periods during which retirement contributions were made to PERS. A member earns one month of service credit for each month of full-time employment. Full time means that a member is compensated at least 160 hours per month. If a member is compensated less than 160 hours in a month, the member receives proportional service credit.

Service Retirement

A participant in the Defined Benefit Retirement Plan is eligible for Service Retirement using any one of three criteria.

- Age 65 and in Active Service
- Age 60 with at least Five Years of Membership Service
- Any Age with at least Thirty Years of Membership Service

Early Retirement

In order to be eligible for Early Retirement, the participant must satisfy at least one of two requirements.

- Age 50 with at least Five Years of Membership Service
- Any Age with at least Twenty Five Years of Membership Service

Early Retirement Factor

When a participant retires under Early Retirement, the participant's monthly income is reduced by a factor. If the participant qualifies under both Age and Years of Membership Service, the higher factor is used and a higher benefit results.

Early Retirement Factors		
Age	Early Retirement Factor (ERF)	Years of Membership Service
59	0.940	29
58	0.880	28
57	0.820	27
56	0.760	26
55	0.700	25
54	0.664	Members under age 50 with less than 25 years of membership service are not eligible for early retirement.
53	0.628	
52	0.592	
51	0.556	
50	0.520	

Service Retirement Benefit

The Defined Benefit formula results in an initial monthly benefit to which a participant is entitled. The participant receives the monthly benefit as income for life. The monthly benefit ends at the death of the participant. If the participant prefers to leave a benefit to his/her survivor, the monthly benefit is reduced.

If you die before receiving benefits equal to your account (your contributions plus interest), your beneficiaries will receive your remaining account balance. Your remaining account balance is your contributions plus interest at the date of retirement minus any payments you received. The employee normally exhausts all contributions and interest in the first three to five years of retirement.

Money Purchase Benefit

At retirement, the MPERA will automatically calculate a member's defined benefit using both the standard formula and the Money Purchase Benefit formula. Whichever produces the higher benefit amount is the formula that is used.

The Money Purchase Benefit formula uses your age and double the regular contributions and interest to produce an initial monthly benefit. The Money Purchase Benefit formula typically produces a higher benefit than the Defined Benefit formula when a participant retires after a long period of inactive service.

See Appendix for more information.

Guaranteed Annual Benefit Adjustment

Whether you retire with a service retirement, an early retirement, or a monthly purchase benefit, you are eligible for the Guaranteed Annual Benefit Adjustment (GABA). The GABA ensures a 3% increase in your benefit from the previous year. Other events that increase your benefit will reduce the GABA but your total increase will still be at least 3%.

DEFINED CONTRIBUTION RETIREMENT PLAN: BASICS



In a Defined Contribution Retirement Plan, both the employer and the employee make contributions to fund a future retirement account balance for the participant.

Contributions

Employee Contributions	Employer Contributions
6.9% of Compensation	6.9% of Compensation: less 2.37% Plan Choice Rate less 0.04% Education Fund less 0.30% Disability Benefit Rate 4.19% Net Employer Contribution to Individual Account

1. **The Plan Choice Rate** is the percent of the employer contribution allocated to the Defined **Benefit** Retirement Plan for employees who choose the Defined **Contribution** Retirement Plan. Required by statute, the rate is actuarially determined to maintain the financial stability of the Defined **Benefit** Retirement Plan. This rate is currently 2.37%.
2. **The Education Fund Rate** is the amount established by statute to fund various PERS member education programs, such as the Retirement Plan Choice Education Campaign in which you are now participating. This rate is currently 0.10% and will change to 0.04% on July 1, 2002.

3. The Disability Benefit Rate is based on the estimated number of PERS members who will choose the Defined **Contribution** Retirement Plan and the expected cost of disability benefits. This rate is currently 0.30%.

Note: The participant who transfers to the Defined Contribution Retirement Plan will receive his/her contributions and a percentage of the employer's contributions, plus 8% compounded annual interest.

Contributions to the Montana University System Optional Retirement Program differ slightly. Refer to the Companion Booklet or the Web Site, www.MPERAchoice.com, for specifics.

The process in this workbook for deciding whether the Defined Benefit Retirement Plan or a Defined Contribution Retirement Plan is better for you applies to both the PERS Defined Contribution Retirement Plan and the Montana University System Optional Retirement Program.

Defined Contribution Retirement Plan: Account Components

There are three account components, as shown below:

1. Employee Contributions

- 100% Vested at All Times

2. Other Contributions

- Rollovers & Transfers
- 100% Vested at All Times

3. Employer Contributions

- 100% Vested after 5 Years of Membership Service
- Prior to 5 years of Membership Service, Employer Contributions forfeited at:
 - Termination
 - or
 - Death

Employer vesting in the Optional Retirement Program differs slightly. Refer to the Companion Booklet or the Web Site, www.MPERAchoice.com, for specifics.

Investments

If you choose the Defined **Contribution** Retirement Plan, you will be actively involved in investing your retirement funds and managing your individual account. Managing your individual account involves four basic areas:

1. **Choosing your investment options**
2. **Changing your investment options**
3. **Transferring among investment options**
4. **Reviewing quarterly statements**

Complete information on your investment choices will be provided by **Great West**, the Plan's contracted record keeper. A full set of investment choices will be available, ranging from conservative to moderate to aggressive.

Note: Investments available in the Montana University System Optional Retirement Program are provided by TIAA-CREF. Refer to the Companion Booklet or the Web Site, www.MPERAchoice.com, for specifics.

Distributions

While the Defined Benefit Retirement Plan provides an income, the Defined **Contribution** Retirement Plan generates an account balance that can be converted into an income. You will have a number of distribution options at termination/retirement:

- Lump Sum Payment
 - Taxable Immediately
 - Possible 10% Penalty Tax
- Periodic Payments
 - Taxable as Received
 - Fixed Amount
 - Life Expectancy
 - Purchase of Annuity
- Continued Tax Deferral
 - Leave in DC Plan, if vested
 - Rollover
 - ☐ IRA
 - ☐ Other Eligible Employer Plan

RETIREMENT INCOME OBJECTIVES

The core of your retirement planning and Retirement Plan Choice can be summarized in a relatively simple way:



- How much income will I need in retirement?
- How much is supplied from various sources?
- Which Retirement Plan best meets my needs?

This Workbook helps you explore your options so you can make the best choice for yourself and your family.

Steps to Calculate Retirement Income:

1. Specify the amount of income you need at retirement.
2. Adjust your amount for projected inflation.
3. Select assumptions for comparing the Retirement Plans
 - a. Life expectancy
 - b. Rate of investment return
 - c. Inflation rate during retirement
 - d. Amount needed for beneficiaries upon your death
4. Calculate present value of each Retirement Plan's benefit or income.

For this portion of the retirement planning calculations, you will need to refer to several tables in this book. The tables show various factors that you can use to adjust for inflation, project retirement accumulations, discount future values, and perform other calculations. Each step of the calculation process will indicate which table is to be used. You will find it helpful to use a calculator for these exercises.

We suggest that you make additional copies of the worksheets if you want to perform multiple scenario calculations.

Retirement Income Objectives: Calculation

Specify Your Retirement Income Objective

Financial planners often suggest that 70% to 80% of your pre-retirement gross income is needed in retirement to maintain the same standard of living. Only you can determine what you need. We suggest that you review your current budget, and project which expense items will be necessary in retirement, in today's dollars. Then, you can make an inflation adjustment for your total objective by using an average inflation estimate.

An alternative is to examine each line-item and make an inflation adjustment for each item. Then, you add all the line-items to calculate your retirement income objective.

Let's look at an example. Then, you can input your own numbers in the following worksheets. (Remember to take taxes into consideration.)

STEP A

Current Monthly Income	Example	Your Planning
PERS-covered Income	\$3,000	
Other Income	\$3,000	
Total Income	\$6,000	
Percentage Goal	80%	
Dollar Goal (Today's \$)	\$4,800	
Years Until Retirement	16	
Inflation Assumption	3%	
Inflation Factor* (from Table xxx)	1.6	
Inflation-Adjusted Income Objective	$\$4,800 \times 1.60 = \$7,680$	

* Factors are rounded, and will produce approximate results.

The **Inflation-Adjusted Income Objective** is the amount of monthly income you will need in the first month of retirement. So far, you have estimated your need for income in retirement, and have made the inflation adjustment for the time between now and your first month of retirement.

The next step is to calculate the amount of income you will receive from other sources, before doing any **additional** planning, saving or investing. You will need to gather information about your current savings, investments, retirement plan estimates, and Social Security projections.

Note: Social Security Administration automatically sends an updated benefit statement to you approximately three months before your birthday. If you need projections of your Social Security benefits for ages and conditions not shown on the statement, go to the Web Site www.ssa.gov or call (800) 772-1213.

Determine Existing Resources

The next step will take into account all of your existing resources (both assets and cash flows) that can be used toward your retirement income objective. Follow the example below, and enter your own numbers.

STEP B

Existing Resources: Assets	Example	Your Planning
Long Term Savings Balances	\$4,000	
Personal Investments: Stocks, Bonds, Mutual Funds	\$2,500	
Current Retirement Account Balances (IRA, 401(k), 403(b), 457 Plan)	\$32,000	
Other Investment Assets: Real Estate, Annuities, and Miscellaneous	\$6,000	
Total Assets Available for Retirement Income	\$44,500	

The **Total Assets Available for Retirement Income** now must be adjusted for assumed long-term investment growth, either using an average rate of return, or employing a specific return assumption for each asset.

STEP C

	Example	Your Planning
Total Assets Available for Retirement Income	\$44,500	
Years Until Retirement	16	
Investment Growth Rate Before Retirement (average)	7% Average	
Factor from Table xxx	2.95	
Total Assets and Investment Growth at Retirement	$\$44,500 \times 2.95 = \$131,275$	

The next step includes the amount of ongoing investment contributions that you plan to continue until retirement. The amount of your PERS contribution (6.9% of compensation) is disregarded at this point.

STEP D

Continuing Investment Deposits: Annualized	Example	Your Planning
Long Term Savings	\$1,000 per year	
Personal Investments	\$3,000 per year	
Retirement Accounts	\$ per year	
Total Planned Deposits	\$4,000 per year	
Years Until Retirement	16	
Assumed Investment Return Before Retirement	8%	
Factor from Table zzz	30.32	
Accumulated Assets from Ongoing Investments	$\$4,000 \times 30.32 = \$121,280$	

Now, we will need to estimate how much initial income is available from the assets at retirement, again using reasonable assumptions. In this case, we need to refer to the Life Expectancy Tables as well as Table xyz to calculate the initial amount of income (the first month) of retirement, which will be inflation-adjusted each year for the rest of the assumed life expectancy.

STEP E

Projected Assets at Retirement	Example	Your Planning
Total Assets and Investment Growth (From Step C)	\$131,275	
Accumulated Assets from Ongoing Investments (From Step D)	\$121,280	
Total Assets at Retirement	\$252,555	
Life Expectancy	27 Years	
Average Investment Rate During Retirement	7%	
Assumed Inflation Rate	4%	
Approximate Real Rate of Return [Investment Rate minus Inflation Rate]	3%	
Factor from Table xyz	.0045	
Initial Monthly Income in First Year of Retirement from Assets, Deposits and Growth	$\$252,555 \times .0045 = \$1,135$	

This amount is the initial monthly income from assets, planned investment deposits and investment growth. This amount will be added to the estimated initial monthly income from other cash flows like Social Security and retirement plans.

The next step will take into account the Social Security and PERS benefit amounts that you can already anticipate. As noted earlier, you can get the updated Social Security estimates in a number of ways, and your PERS estimates are available from the **Personal Comparison Statement**. (See the sample on the next page). You will need to adjust the Social Security amounts for inflation; the PERS estimate is already adjusted for inflation.

Note: Steps F-H are used to project both the Defined Benefit and the Defined Contribution Retirement Plan components of your monthly income. We will calculate the Defined Benefit component first.

PERSONAL COMPARISON STATEMENT (sample below is smaller than actual size)

Basic Facts You Should Consider

As you consider whether to remain in the Defined Benefit Retirement Plan or transfer to the Defined Contribution Retirement Plan, keep the following in mind:

Defined Benefit Retirement Plan

The Defined Benefit Retirement Plan is designed to provide you with a monthly benefit beginning on your retirement date. This benefit increases annually and continues throughout your lifetime. Your retirement benefit is calculated based on your Highest Average Compensation (HAC) x Service Credit x 1/56 (1/50 if you have 25 years or more of Membership Service). Both you and your employer contribute to the Plan. If you choose, you may receive a refund of your contributions and interest instead of receiving a monthly benefit. However, if you elect to receive a refund, no monthly benefits will be available to you. If you choose to receive a monthly benefit, you may elect a payout option that will provide your contingent annuitant with an income after your death.

Defined Contribution Retirement Plan

Under the Defined Contribution Retirement Plan, your retirement benefit is based on the value of your account at the time you retire. You may elect to withdraw your funds as Periodic Payments, as a Life Annuity, or a Lump Sum. Both you and your employer contribute to your account; however, you select where the contributions will be invested within your account. The value of your account will fluctuate based on the rates of return received on your investments. This may result in either a higher or lower retirement income benefit than that provided by the Defined Benefit Retirement Plan. At your death, your beneficiary may receive a lump sum distribution of your account balance or continuing income payments.

Comparing The Retirement Plans

To illustrate the way each plan is designed to work, we have put together a sample statement on this sheet for you to review. Facts about what specific figures represent are included in the color-coded call-out boxes. This will help you better understand the amounts on your Personal Comparison Statement estimates on the other side of this page. Please keep in mind that these are estimates based on assumptions that may not reflect your actual future situation.

Sample Information

Date of Birth	XX/XX/XX	Social Security No.	XXX-XX-XXXX
Date of Hire	XX/XX/XX	Current Wage	\$XX,XXX
Employee Transfer Balance	\$XX,XXX	Employer Transfer Balance	\$XX,XXX
Service Credit			
For Employment	XX.XX	Years	
Purchased/Transferred	-	Years	
Purchases in Progress	-	Years	
Total Years of Service Credit	XX.XX	Years	
One for Five Purchased	X.XX	Years	
Contributions plus Interest	\$XX,XXXX		
Purchases plus Interest	\$XX,XXXX		

* Assuming completed.

Sample Projected Benefits

	Defined Benefit Retirement Plan	Defined Contribution Retirement Plan
		Investments At 6.00% Investments At 10.00%
If you terminate and retire at age 55: Life expectancy = 29 Years		
Monthly Benefit	\$ 2,000	\$ 2,000 ** \$ 2,000 **
Present Value of Lifetime Benefit	\$ 100,000 *	\$ 100,000 \$ 100,000
Or Refund of Contributions and Interest	\$ 100,000	\$ - \$ -
Lump Sum	\$ -	\$ 100,000 \$ 100,000
If you terminate and retire at age 60: Life expectancy = 25 Years		
Monthly Benefit	\$ 2,000	\$ 2,000 ** \$ 2,000 **
Present Value of Lifetime Benefit	\$ 100,000 *	\$ 100,000 \$ 100,000
Or Refund of Contributions and Interest	\$ 100,000	\$ - \$ -
Lump Sum	\$ -	\$ 100,000 \$ 100,000
If you terminate and retire at age 65: Life expectancy = 20 Years		
Monthly Benefit	\$ 2,000	\$ 2,000 ** \$ 2,000 **
Present Value of Lifetime Benefit	\$ 100,000 *	\$ 100,000 \$ 100,000
Or Refund of Contributions and Interest	\$ 100,000	\$ - \$ -
Lump Sum	\$ -	\$ 100,000 \$ 100,000

* The amount that would be required to be invested at 5.00% during retirement to provide your projected Defined Benefit Retirement Plan monthly benefit, increasing at 3.00% each year throughout your projected life expectancy.

** The monthly payment to be provided assuming the Defined Contribution Retirement Plan post-retirement rate of return is 5.00% and the monthly benefit increases each year at 3.00% throughout your life expectancy.

Monthly Retirement Income

This line compares your projected monthly retirement income under the Defined Benefit Retirement Plan and Defined Contribution Retirement Plan.

Present Value of Lifetime Benefit

The present value of your lifetime benefit is the amount that would be required to be invested at a specified rate (5.00%) to provide your monthly benefit, with annual 3.00% increases throughout your life expectancy.

Refund of Contribution and Interest

The Defined Benefit Retirement Plan is designed to provide you with a monthly benefit beginning on your retirement date. This benefit increases annually and continues throughout your lifetime. However, you may choose to receive a refund of your contributions plus interest at your termination from employment. No monthly benefit will be available to you if this selection is made.

Lump Sum

The lump sum amount shown is the projected value of your Defined Contribution Retirement Plan account if your investments received either a 6.00% or 10.00% rate of return. Please note that these rates of return are used for illustrative purposes only. Your actual rate of return may vary significantly from those shown.



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Now, we need to add the projected income from **assets** to the projected income from **cash flow or other income**.

STEP F: DB

Existing Resources: Cash Flow or Other Income (Monthly)	Example	Your Planning
Social Security: Self	\$1,300	
Social Security: Spouse	\$650	
Social Security: Total	\$1,950	
Current Years of Service Credit	14	
Years Until Retirement	16	
Inflation Assumption	2%	
Adjustment Factor for Social Security from Table xxx (Years/%)	1.37	
Inflation-Adjusted Social Security Benefit Estimate	$\$1,950 \times 1.37 = \$2,672$	
PERS Defined Benefit Retirement Plan (from Personal Comparison Statement)	\$2,800	
Part-time Work in Retirement		
Other Retirement Income		
Total Inflation-Adjusted Income	\$5,472	

STEP G: DB

	Example	Your Planning
Income from Assets (From Step E)	\$1,135	
Income from Cash Flow (From Step F: DB)	\$5,472	
Total	\$6,607	

Finally, we compare the need with the existing resources to determine whether there is a shortage.

STEP H: DB

	Example	Your Planning
Total Income Objective	\$7,680	
Total Resources Available	\$6,607	
Shortage or Surplus if Defined Benefit Plan is Chosen	\$1,073 Shortage	

Now, we repeat the process for the **Defined Contribution Retirement Plan**, again taking information from the **Personal Comparison Statement**.

STEP F: DC

Existing Resources: Cash Flow or Other Income (Monthly)	Example	Your Planning
Social Security: Self	\$1,300	
Social Security: Spouse	\$650	
Social Security: Total	\$1,950	
Current Years of Service Credit	14	
Years Until Retirement	16	
Inflation Assumption	2%	
Adjustment Factor for Social Security from Table xxx (Years/%)	1.37	
Inflation-Adjusted Social Security Benefit Estimate	$\$1,950 \times 1.37 = \$2,672$	
PERS Defined Contribution Retirement Plan (from Personal Comparison Statement)	\$1,800	
Part-time Work in Retirement		
Other Retirement Income		
Total Inflation-Adjusted Income	\$4,472	

STEP G: DC

	Example	Your Planning
Income from Assets (From Step E)	\$1,135	
Income from Cash Flow (From Step F: DC)	\$4,472	
Total	\$5,607	

STEP H: DC

	Example	Your Planning
Total Income Objective	\$7,680	
Total Resources Available	\$5,607	
Shortage or Surplus if Defined Contribution Plan is Chosen	\$2,073 Shortage	

STEP HH

	Defined Benefit Example	Defined Contribution Example	Your Defined Benefit Calculation	Your Defined Contribution Calculation
Surplus or Shortage	\$1,073 Shortage	\$2,073 Shortage		

Funding to Satisfy the Shortage

If there is a shortage in the amount of projected retirement income, you have a number of options to solve the problem.

- Delay retirement.
- Reduce your income goal.
- Consider investing more aggressively if in the Defined Contribution Retirement Plan.

You may wish to consider how each of these options affects your retirement goals.

This Workbook allows you to do **additional** modeling of your retirement scenarios so that you may select the Retirement Plan that best suits your needs. Both Plans can be modeled in the Workbook, using different retirement ages, rates of return, inflation, and life expectancy. (*The Modeling Software has the same and even more capability. The results of the calculations will be different due to rounding in the Workbook*).

Here, we again suggest that you make additional copies of the worksheets if you want to perform multiple scenario calculations.

STEP AA

	Example	Your Planning
Income Shortage	\$1,073	
Enter Life Expectancy at Retirement	27	
Expected Investment Return	7%	
Assumed Inflation Rate	4%	
Approximate Real Rate of Return	3%	
Factor from Table yyy (Present Value of Inflation-Adjusted Payments)	222.432	
Enter: Present Value at Retirement of Income Shortage	$\$1,073 \times 222.432 =$ \$238,669	

The **Present Value of the Income Shortage**, in essence, is the number of dollars you need to have on hand in an account, the day you retire, that can generate an increasing income over your life expectancy to make up for the shortage.

The next step is to calculate how much you need to invest on a regular monthly basis in order to make up for the shortage.

STEP BB

	Example	Your Planning
Shortage Amount	\$238,669	
Years Until Retirement	16	
Expected Investment Return	8%	
Factor from Table qqg	.0026	
Additional Monthly Amount of Investment Deposit Required to Satisfy Shortage	$\$238,669 \times .0026 =$ \$620.54	

Some questions arise: Can I afford the additional monthly investment? Where should I invest the money to make up for the shortage?

Again, you have a number of options. Depending on your employment situation, you may have access to tax-advantaged retirement accumulation programs such as:

- Section 403(b) Tax Sheltered Annuities
- Section 457 Deferred Compensation Plans
- Section 401(k) Plans (through a spouse)
- Section 408 Plans (Traditional or Roth IRAs)

You may also invest in regular savings and investment plans.

Defined Contribution Retirement Plan: MODELING

Another approach to solving the shortage is to assume that you will transfer to the Defined Contribution Retirement Plan, and make calculations for a number of scenarios based on different assumptions. For example, you can use the table below to calculate the potential income available from the Defined Contribution Retirement Plan with changes in these assumptions:

- Expected Investment Return
- Number of Years until Retirement
- Life Expectancy
- Amount of Capital Remaining at Life Expectancy

Remember, employees of the Montana University System are also eligible for an Optional Retirement Program administered by TIAA-CREF. The modeling projections will generally apply to both the PERS Defined Contribution Retirement Plan and the Montana University System Optional Retirement Program.

The following example (Step CC) shows modeling a new scenario using a change in only one variable, the interest rate. This projection assumes an 8% rate of return on investments, which is different from the 6% or 10% rates assumed in the Personal Comparison Statement.

STEP CC

	Example	Your Planning
Transfer Balances from the DBRP	\$80,000	
Expected Investment Return	8%	
Years until Retirement	16	
Factor from Table xxx	3.43	
Projected Balance at Retirement from Transfer Balance	\$274,400	
Ongoing Deposits: Assume 11% of Gross Pay [Employee: 6.9% Employer: 4.1%]	$\$3,000 \times .11 =$ \$330 per month	
Inflation Rate (for Pay Increases)	3%	
Factor from Table yyy (Present Value of \$1 Monthly Payment, using Real Rate of Return)	132.53	
Present Value of Increasing Monthly Contribution	$\$330 \times 132.53 = \$43,735$	
Factor from Table xxx (Future Value of \$1) at Investment Return	3.43	
Projected Balance at Retirement from Deposits	$\$43,735 \times 3.43 = \$150,011$	
Sum of Projected Balances	$\$274,400 + \$150,011 =$ \$424,411	
Factor from Table xyz (27 Years; 5% Real Return)	.0056	
Initial Monthly Income at Retirement from Combined Projected Balances	$\$424,411 \times .0056 =$ \$2,377	

Now you can compare the total projected income available for each scenario to determine if you still have a shortage. Make sure to include projected income from all sources.

Defined Benefit Retirement Plan: MODELING

If you need to make Defined **Benefit** projections for retirement ages other than those shown on the Personal Comparison Statement, you can use the following table.

For example, a participant decides to retire with 25 years of service at age 57.

	Example	Your Planning
Years of Service Credit at Retirement	25 Years of Service Credit at Retirement	
Multiplier: If less than 25 years of Membership Service at Retirement: .017857 If 25 or more years of Membership Service at Retirement: .02	.02	
Current PERS-related monthly compensation	\$3,000	
Inflation factor for compensation	3%	
Years until retirement	16	
Factor from Table SB	1.535	
Highest Average Compensation	$\$3,000 \times 1.535 = \$4,605$	
Life Only Income at Retirement: Initial Amount	$.02 \times 25 \times \$4,605 =$ \$2,303 per month	
Early Reduction Factor: (If Service Retirement is not reached). See Early Retirement Factor Table.	0.82 (Age 57)	
Reduced Initial Monthly Income for Early Retirement	$\$2,303 \times .82 =$ \$1,888 per month	

Personal Investment Strategies: Planning Considerations

In setting your personal investment strategies, be sure to consider each of the planning factors discussed. Below is a checklist to facilitate your investment planning:

Time:

- How long before you need the money?
- Will you need to get it out immediately?
- What are the odds that your goal will change?
- What will your income be during this time?

Risk:

- How much can you afford to lose?
- Can you make up the difference if you lose money?
- Will other sources of income tide you over?
- How much do you know about investing?

What are your expectations about:

- Inflation?
- Tax rates?
- Interest rates?
- The stock market?

Return:

- How important is the rate of return?
- Can you tolerate a zero return in one year and a 25% return in the next?
- Would you tolerate negative return?
- Do you need current income?
- Do you have a need for fixed income?

Taxes:

- Is this qualified plan money?
- Can the tax liability be shifted to a lower tax bracket?
- Do you need the current income?
- Will your tax rate change in future periods?

The bottom line:

Match your investment needs with your investment choices.

INVESTMENT EDUCATION



This “Investment Education” section will introduce you to the topics you must be familiar with to become a successful investor. The more familiar you are with investment concepts, the more confident you will be in managing your Defined Contribution Retirement Plan as well as other investment programs, including 457 plans, tax-sheltered annuities, and IRAs.

Types of Investments

All investments fall into one of three categories, each with its own strengths and weaknesses:

Money Market

A money market investment is a short-term debt instrument. This means that you’re loaning money to earn interest.

- These short-term loans (less than one year) are made to entities such as governments, financial institutions, or corporations.
- Typically, these transactions are very large. While some individuals can invest directly in these securities, most invest indirectly through money market accounts and money market mutual funds.
- Investors not only expect to get their principal investment back but also expect to receive interest.

- Because these types of loans are short-term, there is very little risk; therefore, money market investments usually pay less interest than longer-term debt instruments.
- Money market investments have no potential for appreciation of principal, but offer income, liquidity and a low probability of default.

Money market investments are designed for your short-term goals, where you seek liquidity, reasonable return and safety of principal. Remember that liquidity is the ability to convert an asset into cash quickly, with no risk of principal loss. Money market investments ensure that all of the principal you invest will be available when you need it. Safety, liquidity and reasonable returns are the reasons most investors use money market investments for their liquid cash reserves. Money market funds are suitable for planned and unplanned expenses, such as emergencies, and as a parking place between investments.

Fixed Income

Fixed income investments are also debt instruments. Again, you're loaning money to receive interest. Fixed income differs from a money market investment in the length of the loan.

- The issuer of the security is the entity that borrows the money. The debt security it issues, often called a bond, is the contractual promise to repay the principal at a specified maturity date, as well as interest at specified intervals until maturity.
- Fixed income investors face default risk and interest rate risk, defined later.

Fixed income investments are best suited for investors needing current income. Bonds also allow investors to match maturity dates to specific financial goals. This ensures funds, the bond's principal, will be available when needed. For example, investors often use bonds for college funding, planning to have principal come due before the beginning of each school year. Bonds also play an important role in asset allocation. Asset allocation involves spreading portfolio assets among and within the three types of investments (money, fixed-income and equity) to reduce risk exposure.

Equity

Equity investments, unlike money market or fixed income investments, represent ownership.

- In contrast to fixed income investments, equity securities have neither a guaranteed return nor a maturity date.
- The common stock of corporations is a type of equity investment. The common stockholders of a corporation are its owners.
- As owners, stockholders have a “residual claim” on corporate earnings and assets. Therefore, stockholders take more risk than bondholders who lend money to the corporation. Their residual claim means that stockholders are always the last to be paid. After all creditors, including the IRS, suppliers, employees, bondholders, and preferred stock holders are paid, equity holders may receive the residual, or whatever is left.

Equity investors expect two forms of return: appreciation and income. Together these are called “total return.” However, remember that neither type of return is guaranteed. In fact, equity investors may lose some, or in rare instances, all of their principal.

Risk and Return

For many investors, an investment's potential return is the most important aspect of their evaluation. However, the amount of risk that will be necessary to obtain that return is just as important. What is risk? It can be defined as "uncertainty." That is, risk is the uncertainty that an investment's actual return will be different from its expected return. Risk is measured in a variety of ways.

An investment's return should compensate you for its level of risk. On average, riskier investments may be expected to have higher returns and less risky investments are likely to have lower returns.

In some cases, riskier investments do not generate higher returns. These types of investments are referred to as "inefficient" investments.

Similarly, lower risk investments rarely ever produce higher returns. You should view claims of low risk investments that produce high returns with caution, unless they are made by a trusted advisor who can provide you with a full explanation.

As an investor, you should answer the question: “How much risk am I willing to assume?” This is an essential step in the investment planning process. To answer this question, it’s important to understand the different types of investment risk:

- Inflation Risk (Purchasing Power Risk)
- Interest Rate Risk
- Default Risk
- Market Risk
- Speculative Risk
- Leverage Risk

Inflation Risk

Inflation Risk, also called Purchasing Power Risk, is the risk that an investment’s return will not offset inflation, resulting in a loss of purchasing power.

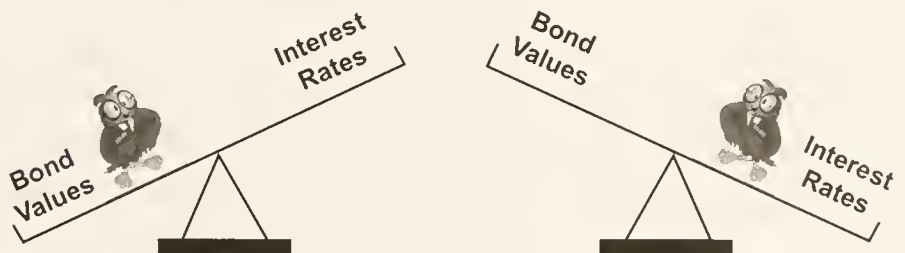
Purchase T-Bill Paying 3%	3.00%
Assume Inflation is 4%	<u>-4.00%</u>
Loss of Purchasing Power	-1.00%

T-Bills are considered to be the safest of all investments, but inflation reduced the amount of goods and services you can purchase by 1%. In addition, you'll pay taxes on the 3% you earned.

Interest Rate Risk

Interest Rate Risk is the change in investment value caused by a change in current interest rates. It's a major risk affecting all fixed income investors. When interest rates rise, the prices or values of fixed income investments fall and vice versa. Let's say you purchase a \$1,000 30-year government bond paying 8%. If you hold this bond for 30 years, you'll receive \$80 each year in interest and your \$1,000 back at the end of 30 years. But, if you need to sell your bond during the 30 years, you may be able to sell it at a premium (more than you paid for it) or you may have to sell at a discount (less than you paid for it) depending on what interest rate newly issued government bonds are paying.

The following illustrates the fluctuation in a bond's value if interest rates rise or fall:



Default Risk

Default Risk is the risk that the issuer of the security (bond) may not be able to make timely payments of interest and/or principal.

Market Risk

Market Risk is the risk of the general stock market declining. Although all securities are exposed to market risk, it primarily affects common stocks. Common stocks, unlike money market or fixed income investments, represent ownership of a corporation. If you own a share of XYZ Company, you're an owner of that company. When you own stock, you typically expect two forms of return on your money - appreciation and sometimes income. However, there is no guarantee that you will receive either of these returns. And, in fact, there may be times when you will lose some or your entire principal.

Let's consider a typical scenario leading to a general stock market decline. First, suppose investors are concerned about inflation. Because of this concern, investors will demand higher interest rates on their fixed-income securities. They demand higher rates because they don't want their bond investments to lose purchasing power due to inflation. As interest rates rise, what typically happens to the stock market? It usually falls. Why? As interest rates rise, investors perceive that companies will be required to pay higher rates to borrow money. As a result of higher borrowing costs, companies will raise their prices on goods and services. At higher prices, consumers will purchase fewer goods and services. In addition to higher prices, consumers will also spend less because of their higher cost to borrow funds to pay for the goods and services. As individuals buy fewer goods and services, corporate profits will decline. Finally, declining corporate profits normally result in lower stock prices.

Example:

Sue has carefully selected a portfolio of five stocks with excellent potential for above average long-term growth. The market declines significantly and her stocks fall along with the market. However, Sue still believes that her stocks will produce above average returns in the future. She understands that she must accept market risk to achieve those above average returns. She is confident because she has selected her stocks carefully and planned her investments over an appropriately long time horizon to take into account the likelihood of market risk.

Equally important is the effect of rising interest rates on investor preference for bonds over stocks. As interest rates rise, investors are attracted to the higher bond yields, fixed cash flows and the comparative safety of bonds over stocks. Investors begin to sell stocks and buy bonds. As investors sell stocks, they drive down stock prices. By increasing the supply and lowering the demand for stocks, investor preference for bonds over stocks contributes to market risk. Other factors contribute to market risk as well, such as political instability, disruptions in the supply of materials, adverse changes in tax laws, and other conditions that affect the level of corporate profitability.

Speculative Risk

Speculative risk involves the probability of a company suffering losses, or making less profit than expected for a given period because of adverse circumstances in that particular company's industry.

Risk can also be caused by factors such as worldwide recession, inflation, poor management planning, trade restrictions, or possibly hostile relationships with a foreign country where a majority of the company's goods are marketed.

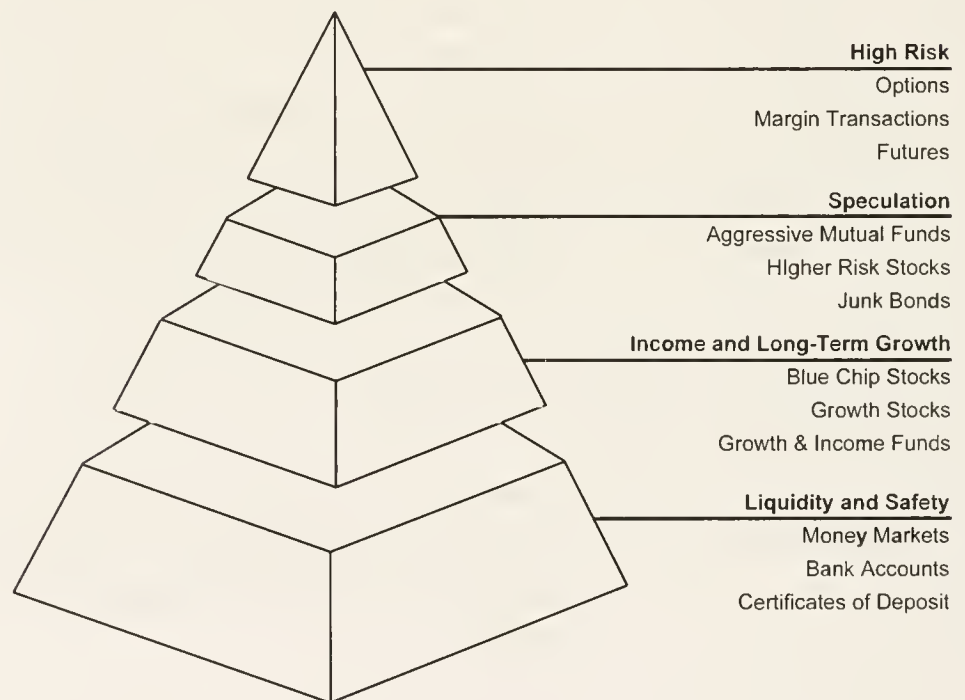
Leverage Risk

What's worse than losing all your original investment? Losing more than all your investment. When you borrow money to make an investment you are "buying on margin."

Example:

You borrow \$10,000 from your broker to buy \$20,000 worth of a stock you've been following. Unfortunately, the stock drops significantly in value. You've not only suffered a loss of your own money, but you've also lost some of the money you borrowed to invest. Now you must pay back to your broker, with interest.

Risk Pyramid



Note that as we move up the risk pyramid we are moving into higher risk investments, but we are committing smaller portions of our total assets. In this manner we build a solid portfolio and avoid taking excessive risk.

Historical Investment Returns

At this point, we remind you to base your projections on reasonable expectations of investment return. According to statistics published annually by Ibbotson & Associates, we know that the long-term total returns of various asset classes are approximately as shown:

Large Capitalization Stocks 11.0%

Small Capitalization Stocks 12.5%

Bonds 6.0%

Cash Equivalents 3.6%

In the recent past, one widely used index of common stocks, the Standard & Poor's 500, exceeded a 20% total return in each of the five years from 1995 through 1999. Some investors began to expect such lofty investment returns as if they were normal. We caution all investors to take a long-term perspective when dealing in average returns, and consider the volatility associated with both stocks and bonds. We strongly recommend that you base your planning on conservative estimates of return for each asset class. In the event that your returns exceed your projections, you can retire early, increase your spending, enhance your charitable giving or find other uses for your abundance.

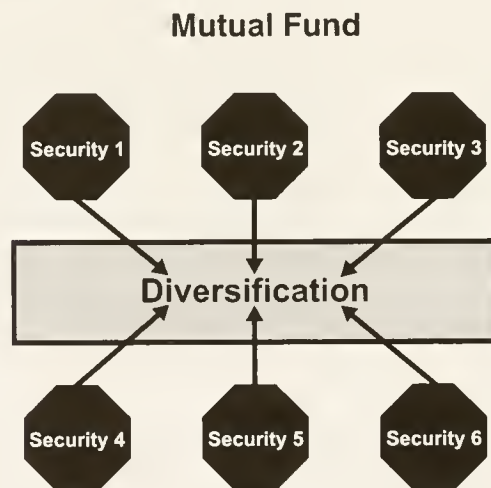
Mutual Funds

A mutual fund is a corporation or trust in which individual investors pool their funds and invest in a variety of common securities, depending on the type of fund.

There are several reasons why mutual funds are popular with individuals:

- Reduced Risk
- Diversification
- Professional Management
- Convenience
- Liquidity

- Risk is reduced through asset allocation and diversification. Portfolio managers watch the funds and buy and sell securities that are suitable for the type of fund.



- Many individuals cannot afford to diversify widely by using separate investments, nor do they have the time and expertise to monitor them. Mutual funds offer diversity of investments and professional management.
- Mutual fund shares include automatic reinvestment at full or fractional shares, and automatic purchase or withdrawal plans.

Types of Funds

Money Market Mutual Funds

These are funds that invest in a variety of short-term CDs, T-Bills, Commercial Paper, and other short-term securities. The funds usually offer check-writing privileges. These funds are very liquid and considered safe, but are not insured.

Income Mutual Funds

Income mutual funds invest primarily in bonds of corporations, governments and municipalities. Remember that the value of bonds fluctuates with changes in interest rates. This happens to the bonds in an income mutual fund as well.

Equity Mutual Funds

Equity mutual funds invest primarily in stocks of corporations. The following is a sample of different types of equity mutual funds:

- **Aggressive Growth or Maximum Capital Appreciation**
Funds seek maximum increase in value as their investment objective. Current income is not a significant factor. Some may invest in stocks of businesses that are out of the mainstream, such as fledgling companies, new industries, or companies currently experiencing difficulties.
- **Balanced Funds** generally have a three-part investment objective:
 - Conserve investors' initial principal.
 - Pay current income.
 - Promote long-term growth of both principal and income.

Balanced funds have a mixed portfolio of stocks, bonds and money market investments.

- **Global Equity Funds** invest in securities traded worldwide, including the U.S. These funds offer investors an easier way to invest abroad.
- **Growth Funds** invest in the common stock of well-established companies. Their primary goal is to produce an increase in the value of the investments rather than to generate income.
- **Growth and Income Funds** invest mainly in the common stock of companies that have increased in value but also have a consistent record of paying dividends. These funds attempt to combine long- term capital growth with a steady stream of income.
- **Index Funds** invest in the stocks of a broad-based index such as the Standard & Poor's 500 Index. The performance of this fund will tend to mirror the market as a whole.

Asset Allocation

Each type of investment produces different results in terms of safety, income and principal appreciation. The concept of asset allocation is based on these differences. Asset allocation is the practice of allocating assets among different asset classes and diversifying investments within each investment class to reduce risk exposure for a given level of return. Asset allocation allows you to benefit from the strong points while minimizing the weak points of each investment type.

Successful asset allocation and portfolio development require not only understanding the strengths and weaknesses of each investment type, but also how the strength of one type minimizes the weakness of another.

The strengths and weaknesses of each investment type are summarized in the chart below.

	Safety	Income	Appreciation	Goals
Money Market	Excellent	Average	None	Short-Term
Fixed Income	Poor (High Yield Bonds) to Good	Average to Excellent	Moderate	Longer Term
Equity	Poor to Good	Poor to Average	Excellent	Long-Term

Customizing Your Asset Allocation to Your Investment Goals

Because each investment type has strong and weak points, professionals usually mix the various types to meet specific objectives. Professional money managers typically keep a portion of their portfolio in the money market for safety and liquidity. They keep another portion in income investments to generate additional cash flow to reinvest. Money managers place the last portion in equities to provide potential long-term gains and an inflation hedge.

The following charts illustrate examples of asset allocations designed to meet specific investor goals:





With each of the allocations displayed on the previous pages, the investor is trying to find an optimal mix of asset types to fit his personal risk/return profile. A 65-year old retiree who wants very little investment risk might select the “Liquidity Asset Mix,” because that portfolio has no equity risks and reduced risks from income investments. A 38-year old with a 20-year retirement horizon might adopt the “Growth Asset Mix” for the superior returns the equities may provide. An investor can get more return with less risk by mixing different investment types through Asset Allocation.

Evaluating Your Defined Contribution Retirement Plan Options or Other Investment Options

When evaluating investment alternatives, there are a variety of sources of information available including the prospectus, which is available through the fund company, and outside sources, like Morningstar®, Value Line, Callan Associates, CDA, Lipper Analytical, and Kanon Bloch Carre. Computer programs are also available, including Morningstar Principia, WealthBuilder, Quicken, and Alexander Steele's Mutual Fund Expert.

Refer to www.MPERAchoice.com for additional information and links to specific investment choices available in the PERS Defined Contribution Retirement Plan and the Montana University System Optional Retirement Program.

One of the most useful approaches to analyzing and understanding investments is the Morningstar® system that categorizes investments based on their style and size. Morningstar® is an independent company that provides objective research, information and analysis on mutual funds, stocks and annuities. The information below is based on the Morningstar® approach, including Equity and Fixed Income investments.

EQUITY MUTUAL FUNDS



Stocks are equity investments. Stock represents ownership in a corporation, evidenced by a certificate stating the number of shares owned. This type of ownership provides an investor with the possibility of dividends plus prospective growth of share price.

When mutual funds invest in stocks, they invest based on their **style**. Let's look at some of their characteristics:

Equity Mutual Fund Styles

Equity Mutual Funds can be analyzed by the **style** of the manager, along with **capitalization** (size) of the underlying stocks. Style is broken into three general categories:

- **Value:** A value-oriented manager generally purchases securities with a low price to book value (P/B) ratio. [Book value is defined as the historical cost of assets, less depreciation, less debt; per share]. *Low* means low relative to the average. Value managers also generally purchase stocks with a low price to earnings (P/E) ratio. The basic theme of the value style is to buy stocks that are *on sale*. Historically, this style has had a higher long-term rate of return than the growth style, although this is not true of every time period.

- **Growth:** A growth-oriented manager buys stocks with high P/B and high P/E. Growth managers look for stocks with earnings momentum and higher than average earnings growth. Growth styles will generally out-perform value styles in a rising market, and lose more in a falling market. Growth and Value styles tend to alternate in terms of superior investment performance.
- **Blend:** A blend manager does not favor either extreme of P/E or P/B. The stocks selected may have relative P/E and P/B ratios between the extremes, or may have ratios outside the extremes such that the average results in a blend fund style.

Capitalization: Managers also typically have a preference for the size of the companies they buy: Large, mid and small capitalization. Morningstar changed the way it classified stock funds according to size. Now, the 5,000 largest stocks in the Morningstar database are categorized as follows:

Top 5%	250 Stocks	Large Capitalization
Next 15%	750 Stocks	Mid Cap
Bottom 80%	4,000 Stocks	Small Cap

(The former system indicated that Large Cap Stocks have over \$5 billion in market capitalization, Mid Cap between \$1 billion and \$5 billion, and Small Cap less than \$1 billion).

Morningstar® characterizes fund styles as follows:

Equity Style			
	Value	Blend	Growth
Large			
Mid			
Small			

Historically, the small/value and mid/value boxes have had the best long-term rate of return. In general, growth is riskier than value, and small is riskier than large.

Fixed Income Mutual Fund Styles

- **Investment Style (Fixed Income)**

Both domestic and international fixed-income funds, with the exception of convertible bond funds, feature their own fixed-income style data, which focus on the two pillars of fixed-income performance - maturity and credit quality. Morningstar® splits fixed-income funds into three maturity groups, **(short, intermediate, and long)**, and three credit-quality groups, **(high, medium, and low)**. These groupings display a portfolio's effective maturity and credit quality to provide an overall representation of the fund's risk, given the length and quality of bonds in its portfolio. As with equity funds, nine possible combinations exist, ranging from short maturity/high quality for the safest funds to long maturity/low quality for the riskiest.

Fixed Income Style			
	Short	Int	Long
High			
Medium			
Low			

INDIVIDUAL RETIREMENT ACCOUNTS (IRAs)



In addition to your Defined **Benefit** or Defined **Contribution** Retirement Plan and any other Supplement Plans sponsored by your employer, you may also enhance your retirement security by investing in IRAs.

Individual Retirement Accounts (IRAs) allow you to invest for retirement on a tax-advantaged basis. You may invest up to \$3,000 of your earned income in an IRA in 2002. The tax advantages you receive depend on your eligibility and the type of IRA in which you invest. If you are age 50 or older by the end of the year, you can make an additional “catch-up” contribution of \$500 to an IRA, for a total maximum of \$3,500 per person in 2002.

Traditional Deductible IRA

Because you're a member of PERS, whether you may take a full deduction for your IRA contribution depends on your adjusted gross income. The following chart illustrates the adjusted gross income phase-out ranges that apply to your tax-deductible IRA contributions in 2002.

Phase Out Ranges for IRA Deductibility Adjusted Gross Income		
Year	Single*	Married/Joint
2001	\$33,000 to \$43,000	\$53,000 to \$63,000
2002	\$34,000 to \$44,000	\$54,000 to \$64,000
2003	\$40,000 to \$50,000	\$60,000 to \$70,000
2004	\$45,000 to \$55,000	\$65,000 to \$75,000
2005	\$50,000 to \$60,000	\$70,000 to \$80,000
2006	\$50,000 to \$60,000	\$75,000 to \$85,000
2007	\$50,000 to \$60,000	\$80,000 to \$100,000

* Single or Head of Household. **Note:** Married Filing Separately involves a phase out between \$0 and \$10,000 of adjusted gross income.

Example:

John is a PERS member. He's married and his wife, Alice, works for a company that does not have a qualified retirement plan. Their combined adjusted gross income for 2002 is \$59,000. John may contribute \$3,000 but only take a deduction for \$1,500. He's entitled to a 50% *pro rata* deduction because their adjusted gross income falls mid-point in the \$54,000 - \$64,000 phase-out range.

What about John's wife? How much can she deduct? The rules for spousal IRAs are different.

Combined Adjusted Gross Income	Deduction Available to Non-Participant Spouse
Less than \$150,000	Full
Between \$150,000 and \$160,000	<i>Pro Rata</i>
Over \$160,000	None

Because John and Alice's adjusted gross income is less than \$150,000 and she's not covered by a qualified retirement plan, she may contribute \$3,000 and take a full tax deduction. So, for John and Alice, the total tax deduction for 2002 is \$4,500 (John \$1,500 and Alice \$3,000). If their adjusted gross income were between \$150,000 and \$160,000, Alice would get a partial deduction. And, if their adjusted gross income were over \$160,000, Alice would not be allowed a deduction for her contribution.

If Alice had a qualified retirement plan through her employer, then the same phase out ranges that applied to John would apply to her as well and their combined tax deduction would be \$3,000 (\$1,500 for each), assuming AGI of \$59,000.

You may not contribute to a Traditional IRA in the year you reach age 70 ½ even if you continue to work, and withdrawals from these accounts must begin at age 70 ½. (Technically, the first required minimum distribution must be made by April 1st of the year *following* the year you reach age 70 ½).

Roth IRA

Roth IRA contributions are not tax deductible; however, the earnings accumulate tax deferred and will be tax free at withdrawal if certain requirements are met. The amount you may contribute to a Roth IRA depends on your adjusted gross income as shown in the following chart.

Filing Status	Phase-Out Range
Single	\$95,000 to \$110,000
Married Filing Joint	\$150,000 to \$160,000

Income below the phase-out ranges allows for a full Roth IRA contribution. Above the upper limit, no contribution is allowed to a Roth IRA. Within the range, a *pro rata* contribution is allowed.

Qualifying distributions from a Roth IRA are totally income tax free. In order to qualify for income tax free treatment, the Roth IRA must have been in existence for at least 5 years, and the distribution must be on account of death, disability, the attainment of age 59 ½, or a first time home purchase (lifetime limit of \$10,000).

You may make contributions to this account each year as long as you have earned income. Withdrawals are not required at any age.

Rollover IRA

If you move your Defined Contribution Retirement Plan account to an IRA when you terminate your employment, your IRA is referred to as a Rollover IRA.

Under new tax law rules, participants in various tax-favored plans have much more flexibility at retirement or termination. An individual can use an IRA Rollover, for example, to act as a receptacle for distributions from:

- Defined Contribution Retirement Plans
- 403(b) Tax Sheltered Annuities (TSAs)
- 457 Deferred Compensation Plans
- Traditional Deductible and Non-Deductible IRAs

A Rollover IRA may also act as a “conduit.” A conduit is an IRA in which a lump sum is “parked” and later rolled into another qualified plan, such as a new employer’s 401(k).

For example, if Sue leaves her employer and rolls her distribution to a conduit IRA, she can later roll that conduit IRA into her new employer’s savings plan as long as her new employer’s plan accepts rollovers.

It is important, as always, to review these rules with a knowledgeable advisor.

Exceptions to Early Withdrawal Tax

In general, if you **withdraw** funds from an IRA prior to age 59 ½, you'll be subject to a 10% penalty tax for early withdrawal.

However, there are exceptions:

- Disability
- Death
- If received as part of a series of substantially equal periodic payments based on life expectancy (annuitized)
- If used for qualified educational expenses
- If used to pay medical expenses in excess of 7.5% of adjusted gross income
- If used to purchase health insurance if you are unemployed
- If used for a first-time home purchase up to a lifetime maximum of \$10,000

A Rollover or Transfer from an IRA to another IRA or an eligible employer's plan is not a withdrawal, and would not be subject to tax **or** penalty.

IRA Comparison Chart

Feature	Traditional Deductible	Traditional Non-Deductible	Roth IRA	IRA Rollover
Contribution and Tax Status	All, a portion, or none of contribution is deductible based on adjusted gross income and whether covered by a qualified plan	Not deductible in any case	Not deductible in any case	Contributions were already taxed (except for after-tax contributions rolled over after 2001). No limit on Rollover amount
Tax Status of Earnings	Tax-deferred	Tax-deferred	Tax-deferred	Tax-deferred
Tax Status of Distributions	Taxable as ordinary income	Contributions are tax-free; earnings are taxable	Qualifying distributions are income tax free.	Generally taxable. After-tax contributions are received tax free.
Age Limit for Contributions*	Age 70 ½	Age 70 ½	No Age Limit	N/A
Age for Required Withdrawals*	Age 70 ½	Age 70 ½	Withdrawals not required	Age 70 ½

* See prior discussion regarding age 70 ½ contributions and withdrawals.

Social Security

You'll be eligible to receive 100% of your full Social Security benefit at your Full Retirement Age (SSFRA) and a reduced benefit as early as age 62. If you were born in 1937 or earlier your SSFRA is 65. The normal retirement age of 65 has been increased gradually to age 67 for those born after 1937. The following schedule will help you determine when you're eligible to receive an unreduced benefit and the percent of that benefit available at age 62.

Year of Birth	Full Retirement Age	Percent of Full Benefit at 62
Before 1938	65	80.0%
1938	65 and 2 months	79.2%
1939	65 and 4 months	78.3%
1940	65 and 6 months	77.5%
1941	65 and 8 months	76.7%
1942	65 and 10 months	75.8%
1943-54	66	75.0%
1955	66 and 2 months	74.2%
1956	66 and 4 months	73.3%
1957	66 and 6 months	72.5%
1958	66 and 8 months	71.7%
1959	66 and 10 months	70.8%
1960 and later	67	70.0%

Let's assume your full retirement age for Social Security purposes is 66, but you're planning on retiring at age 62. At that age you'll be entitled to 75% of the amount you would receive at age 66. If your monthly benefit at age 66 is \$1,000, then your age 62 benefit will be \$750. The following chart illustrates the cumulative amount of your benefits at age 62 and age 66. *These amounts are not adjusted for inflation.*

Note that from age 62 through age 76 (15 years), your cumulative total benefit is larger than if you waited to receive the larger amount at age 66.

Age	Benefit at 62: Annual	Benefit at 62: Cumulative	Benefit at 66: Annual	Benefit at 66: Cumulative
62	\$9,000	\$9,000		
63	\$9,000	\$18,000		
64	\$9,000	\$27,000		
65	\$9,000	\$36,000		
66	\$9,000	\$45,000	\$12,000	\$12,000
67	\$9,000	\$54,000	\$12,000	\$24,000
68	\$9,000	\$63,000	\$12,000	\$36,000
69	\$9,000	\$72,000	\$12,000	\$48,000
70	\$9,000	\$81,000	\$12,000	\$60,000
71	\$9,000	\$90,000	\$12,000	\$72,000
72	\$9,000	\$99,000	\$12,000	\$84,000
73	\$9,000	\$108,000	\$12,000	\$96,000
74	\$9,000	\$117,000	\$12,000	\$108,000
75	\$9,000	\$126,000	\$12,000	\$120,000
76	\$9,000	\$135,000	\$12,000	\$132,000
77	\$9,000	\$144,000	\$12,000	\$144,000
78	\$9,000	\$153,000	\$12,000	\$156,000

If you've attended a workshop, used the modeling software, and viewed the video, but would still like some assistance in making your financial decisions, you may want to consider the services of a financial planner. The following is a brief overview of some of the more common terms and titles that are found in the financial planning industry:

Types of Financial Planners

- **Financial Planner** is anyone who wishes to be called by that title. It's a term most widely used by insurance agents, accountants, real estate agents, stockbrokers, investment advisors and attorneys.
- **CFP (Certified Financial Planner)** is someone who has sufficient experience and has successfully completed a series of courses in the field of financial planning, as well as a comprehensive exam. Continuing education is required to maintain this certification. Certification is provided through the CFP Board of Standards.
- **ChFC (Chartered Financial Consultant)** is someone who has graduated from a program offered by the American College in Bryn Mawr, PA. This course is primarily about insurance-based financial planning. This program requires similar course work to the CFP program.
- **CPA (Certified Public Accountant)** is someone who has met educational, professional and state licensing requirements in accounting. CPAs usually do more planning than the selling or offering of specific investment advice.

- **Registered Representative** is someone who works for a specific product company (usually insurance or mutual funds) or an independent Broker/Dealer and sells products for a commission. These individuals have passed a licensing examination and are licensed by the securities exchange regulating body.
- **CLU (Chartered Life Underwriter)** is an insurance person who has undertaken a course of study of advanced insurance topics.
- **LIC (Licensed Insurance Counselor)** is an insurance person who may charge a fee for insurance advice, rather than receive a commission on insurance products.
- **RIA (Registered Investment Advisor)** is a person who has registered with the Securities and Exchange Commission to give investment advice for a fee.

Compensation

Compensation
• Commissions from Sale of Investment Products • Fees for Services - Based on Assets under Management - Project-Based - Hourly Rate • A Combination of Fees and Commissions

- **Fee Planners**, by nature of their arrangement, are relatively independent of the investment you make. They will try to recommend the best investments, regardless of sales charges or commissions. Fee-based planners charge you for their time. Good planners may charge between \$50 and \$200 per hour for advice and counsel.
- **Commission Planners** earn their income by selling you the products of the companies they represent. Different investments have different sales charges; however, you pay only if you buy something and the cost is included in the investment amount.

The following illustrates potential advantages and disadvantages of using the services of either a Fee Planner or a Commission Planner.

	Fee Planner	Commission Planner
Advantage	Objective Advice	No Fee
Disadvantage	Fee	May or May Not be Objective

Questions to Ask When Selecting a Financial Planner

Background, Experience and Regulatory Compliance

Financial planners who receive a fee for providing investment advice must file a form listing their education and experience with the Securities and Exchange Commission. Ask for a copy of this form, and then ask the following questions.

- Are you registered with the Securities and Exchange Commission? If not, is your firm? To find out if a person or firm is registered, contact the SEC at 800 732-0330 or **www.SEC.gov**.
- What credentials have you earned?
- What is your educational background?
- How long have you been practicing financial planning?
- May I have a list of references?

Services

- What kind of services do you offer?
- Will you prepare a complete or partial financial plan after listening to my goals?
- Do you sell financial products?
- Do you manage investments for a fee?
- Do you review a client's taxes?
- What kind of client do you generally service?
- Do you have a minimum account size?
- What continuing services will I receive after the initial plan?
- How often do you send out portfolio reports?
- What are your research methods and sources?

Compensation

The SEC requires that the individual or firm disclose this information:

- How much is the firm paid?
- May I have a written estimate of what the fees will be?
- Do you have a printed fee schedule available?

Money Purchase Benefit Factors



Monthly Single Life Annuities per \$1,000

When a member of the PERS Defined Benefit Retirement Plan retires, the MPERA calculates the initial monthly benefit using the standard formula as well as the Money Purchase Benefit factor. The participant receives the higher of the two calculations.

The Money Purchase Benefit procedure is as follows:

- Determine the Regular Contributions plus Interest for the period of employment in PERS.
- Double the amount of Regular Contributions plus Interest. (Purchased Service is **not** doubled).
- Divide the doubled amount by 1,000.
- Multiply the result by the factor for the age at which benefits are to begin. Note: If the member is less than age 60, use the factor for age 60; then reduce the amount by the Early Retirement Factor.

Age	Exact	+ 1/4 Year	+ 1/2 Year	+ 3/4 Year
60	6.391	6.426	6.461	6.497
61	6.532	6.570	6.607	6.645
62	6.682	6.722	6.762	6.802
63	6.841	6.884	6.926	6.968
64	7.011	7.056	7.100	7.145
65	7.190	7.238	7.285	7.333
66	7.380	7.431	7.481	7.532
67	7.582	7.636	7.689	7.743
68	7.797	7.854	7.912	7.969
69	8.026	8.088	8.150	8.211
70	8.273	8.340	8.407	8.474
71	8.540	8.613	8.685	8.758
72	8.830	8.909	8.987	9.066
73	9.144	9.229	9.315	9.400
74	9.485	9.577	9.669	9.761

Example

- Harriett terminated employment after eight years of service, at age 38. At the time of termination, her Highest Average Compensation was \$2,500 per month.
- Her accumulated contributions and interest at her age 55 total \$53,000.

Defined Benefit Formula	Money Purchase Benefit Formula*
8 Years of Service Credit <i>times</i>	Contributions plus Interest = \$53,000
\$2,500 Highest Average Compensation <i>times</i>	Double Contributions plus Interest: <i>2 times</i> \$53,000 = \$106,000
Factor: 1/56	MPB Factor: 6.391 [Age 60 or Younger] <i>times</i>
Equals: \$357 Service Retirement Benefit	\$106 [Number of thousands] =
<i>times</i>	\$677.45 <i>times</i>
Early Retirement Factor: 0.70 =	Early Retirement Factor: 0.70 =
\$250 Initial Monthly Benefit	\$474 Initial Monthly Benefit

Harriett qualifies for a higher monthly benefit under the Money Purchase Benefit Formula, so she will be entitled to an initial monthly amount of \$474. This amount would be **reduced** if she elected a form of survivor benefit for a contingent annuitant. The benefit would also be **increased** due to the Guaranteed Annual Benefit Adjustment of 3% per year after one year of benefit payments. Her first increase begins in January after one year of benefits.

* The Money Purchase Benefit Formula can also be shown as follows:

Normal Contributions plus Interest		\$53,000
<i>Times .002</i>		<i>Times .002 = 106</i>
<i>Times MPB Factor</i>		<i>Times 6.391</i>
<i>Equals Service Retirement Benefit</i>		<i>Equals \$677.45</i>
<i>Times Early Retirement Factor</i>		<i>Times 0.70 =</i>
Initial Monthly Benefit		\$474 Initial Monthly Benefit

Table qqq

Level monthly deposit required to accumulate \$1 future value.
[Deposits at beginning of each month.]

	4%	5%	6%	7%	8%	9%	10%	11%	12%
1	0.0815	0.0811	0.0807	0.0802	0.0798	0.0794	0.0789	0.0785	0.0781
2	0.0400	0.0395	0.0391	0.0387	0.0383	0.0379	0.0375	0.0371	0.0367
3	0.0261	0.0257	0.0253	0.0249	0.0245	0.0241	0.0237	0.0234	0.0230
4	0.0192	0.0188	0.0184	0.0180	0.0176	0.0173	0.0169	0.0165	0.0162
5	0.0150	0.0146	0.0143	0.0139	0.0135	0.0132	0.0128	0.0125	0.0121
6	0.0123	0.0119	0.0115	0.0112	0.0108	0.0104	0.0101	0.0098	0.0095
7	0.0103	0.0099	0.0096	0.0092	0.0089	0.0085	0.0082	0.0079	0.0076
8	0.0088	0.0085	0.0081	0.0078	0.0074	0.0071	0.0068	0.0065	0.0062
9	0.0077	0.0073	0.0070	0.0066	0.0063	0.0060	0.0057	0.0054	0.0051
10	0.0068	0.0064	0.0061	0.0057	0.0054	0.0051	0.0048	0.0046	0.0043
11	0.0060	0.0057	0.0053	0.0050	0.0047	0.0044	0.0042	0.0039	0.0036
12	0.0054	0.0051	0.0047	0.0044	0.0041	0.0039	0.0036	0.0033	0.0031
13	0.0049	0.0045	0.0042	0.0039	0.0036	0.0034	0.0031	0.0029	0.0027
14	0.0044	0.0041	0.0038	0.0035	0.0032	0.0030	0.0027	0.0025	0.0023
15	0.0041	0.0037	0.0034	0.0031	0.0029	0.0026	0.0024	0.0022	0.0020
16	0.0037	0.0034	0.0031	0.0028	0.0026	0.0023	0.0021	0.0019	0.0017
17	0.0034	0.0031	0.0028	0.0025	0.0023	0.0021	0.0019	0.0017	0.0015
18	0.0032	0.0029	0.0026	0.0023	0.0021	0.0019	0.0017	0.0015	0.0013
19	0.0029	0.0026	0.0023	0.0021	0.0019	0.0017	0.0015	0.0013	0.0011

Table qqg (Continued)

Level monthly deposit required to accumulate \$1 future value.
[Deposits at beginning of each month.]

	4%	5%	6%	7%	8%	9%	10%	11%	12%
20	0.0027	0.0024	0.0022	0.0019	0.0017	0.0015	0.0013	0.0011	0.0010
21	0.0025	0.0022	0.0020	0.0017	0.0015	0.0013	0.0012	0.0010	0.0009
22	0.0024	0.0021	0.0018	0.0016	0.0014	0.0012	0.0010	0.0009	0.0008
23	0.0022	0.0019	0.0017	0.0015	0.0013	0.0011	0.0009	0.0008	0.0007
24	0.0021	0.0018	0.0016	0.0013	0.0012	0.0010	0.0008	0.0007	0.0006
25	0.0019	0.0017	0.0014	0.0012	0.0010	0.0009	0.0007	0.0006	0.0005
26	0.0018	0.0016	0.0013	0.0011	0.0010	0.0008	0.0007	0.0006	0.0005
27	0.0017	0.0015	0.0012	0.0010	0.0009	0.0007	0.0006	0.0005	0.0004
28	0.0016	0.0014	0.0011	0.0010	0.0008	0.0007	0.0005	0.0004	0.0004
29	0.0015	0.0013	0.0011	0.0009	0.0007	0.0006	0.0005	0.0004	0.0003
30	0.0014	0.0012	0.0010	0.0008	0.0007	0.0005	0.0004	0.0004	0.0003
31	0.0014	0.0011	0.0009	0.0008	0.0006	0.0005	0.0004	0.0003	0.0003
32	0.0013	0.0011	0.0009	0.0007	0.0006	0.0004	0.0004	0.0003	0.0002
33	0.0012	0.0010	0.0008	0.0006	0.0005	0.0004	0.0003	0.0003	0.0002
34	0.0012	0.0009	0.0007	0.0006	0.0005	0.0004	0.0003	0.0002	0.0002
35	0.0011	0.0009	0.0007	0.0006	0.0004	0.0003	0.0003	0.0002	0.0002
36	0.0010	0.0008	0.0007	0.0005	0.0004	0.0003	0.0002	0.0002	0.0001
37	0.0010	0.0008	0.0006	0.0005	0.0004	0.0003	0.0002	0.0002	0.0001

Table xxx

Rate of Return (or Inflation Rate) is across the top row. Number of years is in the left column.

	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%
1	1.02	1.03	1.04	1.05	1.06	1.07	1.08	1.09	1.10	1.11	1.12
2	1.04	1.06	1.08	1.10	1.12	1.14	1.17	1.19	1.21	1.23	1.25
3	1.06	1.09	1.12	1.16	1.19	1.23	1.26	1.30	1.33	1.37	1.40
4	1.08	1.13	1.17	1.22	1.26	1.31	1.36	1.41	1.46	1.52	1.57
5	1.10	1.16	1.22	1.28	1.34	1.40	1.47	1.54	1.61	1.69	1.76
6	1.13	1.19	1.27	1.34	1.42	1.50	1.59	1.68	1.77	1.87	1.97
7	1.15	1.23	1.32	1.41	1.50	1.61	1.71	1.83	1.95	2.08	2.21
8	1.17	1.27	1.37	1.48	1.59	1.72	1.85	1.99	2.14	2.30	2.48
9	1.20	1.30	1.42	1.55	1.69	1.84	2.00	2.17	2.39	2.56	2.77
10	1.22	1.34	1.48	1.63	1.79	1.97	2.16	2.37	2.59	2.84	3.11
11	1.24	1.38	1.54	1.71	1.90	2.10	2.33	2.58	2.85	3.15	3.48
12	1.27	1.43	1.60	1.80	2.01	2.25	2.52	2.81	3.14	3.50	3.90
13	1.29	1.47	1.67	1.89	2.13	2.41	2.72	3.07	3.45	3.88	4.36
14	1.32	1.51	1.73	1.98	2.26	2.58	2.94	3.34	3.80	4.31	4.89
15	1.35	1.56	1.80	2.08	2.40	2.76	3.17	3.64	4.18	4.78	5.47
16	1.37	1.60	1.87	2.18	2.54	2.95	3.43	3.97	4.59	5.31	6.13
17	1.40	1.65	1.95	2.29	2.69	3.16	3.70	4.33	5.05	5.90	6.87
18	1.43	1.70	2.03	2.41	2.85	3.38	4.00	4.72	5.56	6.54	7.69
19	1.46	1.75	2.11	2.53	3.03	3.62	4.32	5.14	6.12	7.26	8.61
20	1.49	1.81	2.19	2.65	3.21	3.87	4.66	5.60	6.73	8.06	9.65

Table xxx (Continued)

Rate of Return (or Inflation Rate) is across the top row. Number of years is in the left column.

	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%
21	1.52	1.86	2.28	2.79	3.40	4.14	5.03	6.11	7.40	8.95	10.80
22	1.55	1.92	2.37	2.93	3.60	4.43	5.44	6.66	8.14	9.93	12.10
23	1.58	1.97	2.46	3.07	3.82	4.74	5.87	7.26	8.95	11.03	13.55
24	1.61	2.03	2.56	3.23	4.05	5.07	6.34	7.91	9.85	12.24	15.18
25	1.64	2.09	2.67	3.39	4.29	5.43	6.85	8.62	10.83	13.59	17.00
26	1.67	2.16	2.77	3.56	4.55	5.81	7.40	9.40	11.92	15.08	19.04
27	1.71	2.22	2.88	3.73	4.82	6.21	7.99	10.25	13.11	16.74	21.32
28	1.74	2.29	3.00	3.92	5.11	6.65	8.63	11.17	14.42	18.58	23.88
29	1.78	2.36	3.12	4.12	5.42	7.11	9.32	12.17	15.86	20.62	26.75
30	1.81	2.43	3.24	4.32	5.74	7.61	10.06	13.27	17.45	22.89	29.96
31	1.85	2.50	3.37	4.54	6.09	8.15	10.87	14.46	19.19	25.41	33.56
32	1.88	2.58	3.51	4.76	6.45	8.72	11.74	15.76	21.11	28.21	37.58
33	1.92	2.65	3.65	5.00	6.84	9.33	12.68	17.18	23.23	31.31	42.09
34	1.96	2.73	3.79	5.25	7.25	9.98	13.69	18.73	25.55	34.75	47.14
35	2.00	2.81	3.95	5.52	7.69	10.68	14.79	20.41	28.10	38.57	52.80
36	2.04	2.90	4.10	5.79	8.15	11.42	15.97	22.25	30.91	42.82	59.14
37	2.08	2.99	4.27	6.08	8.64	12.22	17.25	24.25	34.00	47.53	66.23
38	2.12	3.07	4.44	6.39	9.15	13.08	18.63	26.44	37.40	52.76	74.18
39	2.16	3.17	4.62	6.70	9.70	13.99	20.12	28.82	41.14	58.56	83.08
40	2.21	3.26	4.80	7.04	10.29	14.97	21.72	31.41	45.26	65.00	93.05

Table xyz

Real Rate of Return: Approximate by subtracting Assumed Inflation Rate from Projected Investment Rate. Example: 7% Investment Rate *minus* 4% Inflation Rate *equals* 3% **Real Rate of Return.**

Use Life Expectancy from Table V or VI.

	1%	2%	3%	4%	5%	6%
Estimated Life Expectancy						
15	.0060	.0064	.0069	.0074	.0079	.0084
16	.0056	.0061	.0065	.0070	.0075	.0081
17	.0053	.0058	.0062	.0067	.0073	.0078
18	.0051	.0055	.0060	.0065	.0070	.0075
19	.0048	.0053	.0057	.0062	.0068	.0073
20	.0046	.0051	.0055	.0060	.0066	.0071
21	.0044	.0049	.0053	.0059	.0064	.0070
22	.0042	.0047	.0052	.0057	.0062	.0068
23	.0041	.0045	.0050	.0055	.0061	.0067
24	.0039	.0044	.0049	.0054	.0059	.0065
25	.0038	.0042	.0047	.0053	.0058	.0064
26	.0036	.0041	.0046	.0051	.0057	.0063
27	.0035	.0040	.0045	.0050	.0056	.0062
28	.0034	.0039	.0044	.0049	.0055	.0061
29	.0033	.0038	.0043	.0048	.0054	.0060
30	.0032	.0037	.0042	.0048	.0053	.0060
31	.0031	.0036	.0041	.0047	.0053	.0059
32	.0030	.0035	.0040	.0046	.0052	.0058
33	.0030	.0034	.0040	.0045	.0051	.0058
34	.0029	.0034	.0039	.0045	.0051	.0057
35	.0028	.0033	.0038	.0044	.0050	.0057

Table yyy

Present Value of Inflation Adjusted Payments of \$1 per month.

[Real Rate of Return across the top row; Years of Life Expectancy in the left column.]

	1%	2%	3%	4%	5%	6%
1	11.945	11.891	11.837	11.783	11.730	11.677
2	23.772	23.546	23.324	23.105	22.889	22.676
3	35.480	34.971	34.472	33.984	33.505	33.035
4	47.073	46.170	45.292	44.436	43.604	42.793
5	58.550	57.147	55.791	54.480	53.212	51.984
6	69.913	67.908	65.981	64.130	62.351	60.641
7	81.162	78.455	75.871	73.403	71.047	68.795
8	92.300	88.793	85.468	82.313	79.319	76.476
9	103.328	98.927	94.782	90.874	87.188	83.710
10	114.245	108.861	103.821	99.099	94.674	90.524
11	125.054	118.598	112.593	107.003	101.796	96.942
12	135.755	128.142	121.106	114.597	108.571	102.987
13	146.350	137.498	129.368	121.895	115.017	108.681
14	156.840	146.668	137.386	128.906	121.149	114.044
15	167.225	155.657	145.167	135.643	126.982	119.096
16	177.507	164.468	152.719	142.116	132.532	123.854
17	187.687	173.105	160.048	148.336	137.811	128.336
18	197.765	181.571	167.160	154.312	142.833	132.557
19	207.743	189.869	174.063	160.054	147.611	136.534
20	217.622	198.003	180.762	165.572	152.157	140.279

Table yyy (Continued)

Present Value of Inflation Adjusted Payments of \$1 per month.

[Real Rate of Return across the top row; Years of Life Expectancy in the left column.]

	1%	2%	3%	4%	5%	6%
21	227.403	205.977	187.263	170.873	156.481	143.806
22	237.087	213.792	193.572	175.968	160.595	147.129
23	246.674	221.453	199.695	180.862	164.508	150.259
24	256.166	228.963	205.637	185.565	168.231	153.206
25	265.563	236.323	211.404	190.084	171.773	155.983
26	274.867	243.538	217.000	194.426	175.142	158.598
27	284.078	250.611	222.432	198.598	178.348	161.061
28	293.198	257.543	227.703	202.607	181.397	163.382
29	302.227	264.339	232.818	206.458	184.298	165.567
30	311.166	270.999	237.782	210.159	187.058	167.626
31	320.016	277.528	242.600	213.716	189.683	169.564
32	328.779	283.928	247.276	217.132	192.181	171.391
33	337.454	290.202	251.814	220.416	194.557	173.111
34	346.043	296.351	256.217	223.570	196.817	174.731
35	354.546	302.378	260.491	226.601	198.968	176.257
36	362.965	308.287	264.639	229.514	201.014	177.695
37	371.300	314.078	268.664	232.312	202.960	179.048
38	379.552	319.755	272.570	235.001	204.811	180.324
39	387.723	325.319	276.361	237.585	206.573	181.525
40	395.812	330.773	280.040	240.067	208.248	182.656

Table zzz

Future Value of \$1 per year (at the end of each year).

	4%	5%	6%	7%	8%	9%	10%	11%	12%
1	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2	2.04	2.05	2.06	2.07	2.08	2.09	2.10	2.11	2.12
3	3.12	3.15	3.18	3.21	3.25	3.28	3.31	3.34	3.37
4	4.25	4.31	4.37	4.44	4.51	4.57	4.64	4.71	4.78
5	5.42	5.53	5.64	5.75	5.87	5.98	6.11	6.23	6.35
6	6.63	6.80	6.98	7.15	7.34	7.52	7.72	7.91	8.12
7	7.90	8.14	8.39	8.65	8.92	9.20	9.49	9.78	10.09
8	9.21	9.55	9.90	10.26	10.64	11.03	11.44	11.86	12.30
9	10.58	11.03	11.49	11.98	12.49	13.02	13.58	14.16	14.78
10	12.01	12.58	13.18	13.82	14.49	15.19	15.94	16.72	17.55
11	13.49	14.21	14.97	15.78	16.65	17.56	18.53	19.56	20.65
12	15.03	15.92	16.87	17.89	18.98	20.14	21.38	22.71	24.13
13	16.63	17.71	18.88	20.14	21.50	22.95	24.52	26.21	28.03
14	18.29	19.60	21.02	22.55	24.21	26.02	27.97	30.09	32.39
15	20.02	21.58	23.28	25.13	27.15	29.36	31.77	34.41	37.28
16	21.82	23.66	25.67	27.89	30.32	33.00	35.95	39.19	42.75
17	23.70	25.84	28.21	30.84	33.75	36.97	40.54	44.50	48.88
18	25.65	28.13	30.91	34.00	37.45	41.30	45.60	50.40	55.75
19	27.67	30.54	33.76	37.38	41.45	46.02	51.16	56.94	63.44
20	29.78	33.07	36.79	41.00	45.76	51.16	57.27	64.20	72.05

Table zzz (Continued)

Future Value of \$1 per year (at the end of each year).

	4%	5%	6%	7%	8%	9%	10%	11%	12%
21	31.97	35.72	39.99	44.87	50.42	56.76	64.00	72.27	81.70
22	34.25	38.51	43.39	49.01	55.46	62.87	71.40	81.21	92.50
23	36.62	41.43	47.00	53.44	60.89	69.53	79.54	91.15	104.60
24	39.08	44.50	50.82	58.18	66.76	76.79	88.50	102.17	118.16
25	41.65	47.73	54.86	63.25	73.11	84.70	98.35	114.41	133.33
26	44.31	51.11	59.16	68.68	79.95	93.32	109.18	128.00	150.33
27	47.08	54.67	63.71	74.48	87.35	102.72	121.10	143.08	169.37
28	49.97	58.40	68.53	80.70	95.34	112.97	134.21	159.82	190.70
29	52.97	62.32	73.64	87.35	103.97	124.14	148.63	178.40	214.58
30	56.08	66.44	79.06	94.46	113.28	136.31	164.49	199.02	241.33
31	59.33	70.76	84.80	102.07	123.35	149.58	181.94	221.91	271.29
32	62.70	75.30	90.89	110.22	134.21	164.04	201.14	247.32	304.85
33	66.21	80.06	97.34	118.93	145.95	179.80	222.25	275.53	342.43
34	69.86	85.07	104.18	128.26	158.63	196.98	245.48	306.84	384.52
35	73.65	90.32	111.43	138.24	172.32	215.71	271.02	341.59	431.66
36	77.60	95.84	119.12	148.91	187.10	236.12	299.13	380.16	484.46
37	81.70	101.63	127.27	160.34	203.07	258.38	330.04	422.98	543.60
38	85.97	107.71	135.90	172.56	220.32	282.63	364.04	470.51	609.83
39	90.41	114.10	145.06	185.64	238.94	309.07	401.45	523.27	684.01
40	95.03	120.80	154.76	199.64	259.06	337.88	442.59	581.83	767.09

Table SB

Future Value of \$1, Set Back 1.5 years, to calculate approximate Highest Average Compensation. Select assumed wage increase percentage and number of years until retirement. Multiply factor times current monthly wage to find approximate Highest Average Compensation.

	1%	2%	3%	4%	5%	6%
3	1.015	1.030	1.045	1.061	1.076	1.092
4	1.025	1.051	1.077	1.103	1.130	1.157
5	1.035	1.072	1.109	1.147	1.187	1.227
6	1.046	1.093	1.142	1.193	1.246	1.300
7	1.056	1.115	1.177	1.241	1.308	1.378
8	1.067	1.137	1.212	1.291	1.374	1.461
9	1.077	1.160	1.248	1.342	1.442	1.549
10	1.088	1.183	1.286	1.396	1.514	1.642
11	1.099	1.207	1.324	1.452	1.590	1.740
12	1.110	1.231	1.364	1.510	1.670	1.845
13	1.121	1.256	1.405	1.570	1.753	1.955
14	1.132	1.281	1.447	1.633	1.841	2.073
15	1.144	1.307	1.491	1.698	1.933	2.197
16	1.155	1.333	1.535	1.766	2.029	2.329
17	1.167	1.359	1.581	1.837	2.131	2.468
18	1.178	1.387	1.629	1.910	2.237	2.617
19	1.190	1.414	1.678	1.987	2.349	2.774

Table SB (Continued)

Future Value of \$1, Set Back 1.5 years, to calculate approximate Highest Average Compensation. Select assumed wage increase percentage and number of years until retirement. Multiply factor times current monthly wage to find approximate Highest Average Compensation.

	1%	2%	3%	4%	5%	6%
20	1.202	1.443	1.728	2.066	2.467	2.940
21	1.214	1.471	1.780	2.149	2.590	3.116
22	1.226	1.501	1.833	2.235	2.720	3.303
23	1.239	1.531	1.888	2.324	2.856	3.502
24	1.251	1.561	1.945	2.417	2.998	3.712
25	1.263	1.593	2.003	2.514	3.148	3.934
26	1.276	1.625	2.063	2.615	3.306	4.170
27	1.289	1.657	2.125	2.719	3.471	4.421
28	1.302	1.690	2.189	2.828	3.645	4.686
29	1.315	1.724	2.255	2.941	3.827	4.967
30	1.328	1.758	2.322	3.059	4.018	5.265
31	1.341	1.794	2.392	3.181	4.219	5.581
32	1.355	1.829	2.464	3.308	4.430	5.916
33	1.368	1.866	2.538	3.441	4.651	6.271
34	1.382	1.903	2.614	3.578	4.884	6.647
35	1.396	1.941	2.692	3.721	5.128	7.046
36	1.410	1.980	2.773	3.870	5.385	7.469

Life Expectancy Table
[Table V: Internal Revenue Service]

Use this Table to estimate the number of years you will spend in retirement if you are single. Find the age at which you expect to retire, and determine the approximate number of years of life expectancy from that point forward.

Age	Life Expectancy
50	33.1
51	32.2
52	31.3
53	30.4
54	29.5
55	28.6
56	27.7
57	26.8
58	25.9
59	25.0
60	24.2
61	23.3
62	22.5
63	21.6
64	20.8
65	20.0
66	19.2
67	18.4
68	17.6
69	16.8
70	16.0
71	15.3
72	14.6
73	13.9

Life Expectancy Table
Joint Lives: Same Age
[Table VI: Internal Revenue Service]

Use this table to estimate the number of years you will spend in retirement if you are married. Note that this table assumes you and your spouse are the same age. Consult the full Table VI for other age combinations. Find the age at which you expect to **retire**, and determine the approximate number of years of combined life expectancy from that point forward.

Retiree and Spouse: Same Age	Combined Life Expectancy
50	39.2
51	38.2
52	37.3
53	36.3
54	35.3
55	34.4
56	33.4
57	32.5
58	31.5
59	30.6
60	29.7
61	28.7
62	27.7
63	26.9
64	25.9
65	25.0
66	24.1
67	23.2
68	22.3
69	21.5
70	20.6
71	19.8
72	18.9
73	18.1

Life Expectancy Table
Joint Lives: Selected Age Combinations
[Table VI: Internal Revenue Service]

	55	56	57	58	59	60	61	62	63
55	34.4	33.9	33.5	33.1	32.7	32.3	32.0	31.7	31.4
56	33.9	33.4	33.0	32.5	32.1	31.7	31.4	31.0	30.7
57	33.5	33.0	32.5	32.0	31.6	31.2	30.8	30.4	30.1
58	33.1	32.5	32.0	31.5	31.1	30.6	30.2	29.9	29.5
59	32.7	32.1	31.6	31.1	30.6	30.1	29.7	29.3	28.9
60	32.3	31.7	31.2	30.6	30.1	29.7	29.2	28.8	28.4
61	32.0	31.4	30.8	30.2	29.7	29.2	28.7	28.3	27.8
62	31.7	31.0	30.4	29.9	29.3	28.8	28.3	27.8	27.3
63	31.4	30.7	30.1	29.5	28.9	28.4	27.6	27.3	26.9
64	31.1	30.4	29.8	29.2	28.6	28.0	27.4	26.9	26.4
65	30.9	30.2	29.5	28.9	28.2	27.6	27.1	26.5	26.0
66	30.6	29.9	29.2	28.6	27.9	27.3	26.7	26.1	25.6
67	30.4	29.7	29.0	28.3	27.6	27.0	26.4	25.8	25.2
68	30.2	29.5	28.8	28.1	27.4	26.7	26.1	25.5	24.9
69	30.1	29.3	28.6	27.8	27.1	26.5	25.8	25.2	24.6
70	29.9	29.1	28.4	27.6	26.9	26.2	25.6	24.9	24.3
71	29.7	29.0	28.2	27.5	26.7	26.0	25.3	24.7	24.0
72	29.6	28.8	28.1	27.3	26.5	25.8	25.1	24.4	23.8
73	29.5	28.7	27.9	27.1	26.4	25.6	24.9	24.2	23.5
74	29.4	28.6	27.8	27.0	26.2	25.5	24.7	24.0	23.3
75	29.3	28.5	27.7	26.9	26.1	25.3	24.6	23.8	23.1
76	29.2	28.4	27.6	26.8	26.0	25.2	24.4	23.7	23.0
77	29.1	28.3	27.5	26.7	25.9	25.1	24.3	23.6	22.8

Life Expectancy Table (Continued)
Joint Lives: Selected Age Combinations
[Table VI: Internal Revenue Service]

	64	65	66	67	68	69	70	71	72
55	31.1	30.9	30.6	30.4	30.2	30.1	29.9	29.7	29.6
56	30.4	30.2	29.9	29.7	29.5	29.3	29.1	29.0	28.8
57	29.8	29.5	29.2	29.0	28.8	28.6	28.4	28.2	28.1
58	29.2	28.9	28.6	28.3	28.1	27.8	27.6	27.5	27.3
59	28.6	28.2	27.9	27.6	27.4	27.1	26.9	26.7	26.5
60	28.0	27.6	27.3	27.0	26.7	26.5	26.2	26.0	25.8
61	27.4	27.1	26.7	26.4	26.1	25.8	25.6	25.3	25.1
62	26.9	26.5	26.1	25.8	25.5	24.9	24.7	24.4	24.2
63	26.4	26.0	25.6	25.2	24.9	24.6	24.3	24.0	23.8
64	25.9	25.5	25.1	24.7	24.3	24.0	23.7	23.4	23.1
65	25.5	25.0	24.6	24.2	23.8	23.4	23.1	22.8	22.5
66	25.1	24.6	24.1	23.7	23.3	22.9	22.5	22.2	21.9
67	24.7	24.2	23.7	23.2	22.8	22.4	22.0	21.7	21.3
68	24.3	23.8	23.3	22.8	22.3	21.9	21.5	21.2	20.8
69	24.0	23.4	22.9	22.4	21.9	21.5	21.1	20.7	20.3
70	23.7	23.1	22.5	22.0	21.5	21.1	20.6	20.2	19.8
71	23.4	22.8	22.2	21.7	21.2	20.7	20.2	19.8	19.4
72	23.1	22.5	21.9	21.3	20.8	20.3	19.8	19.4	18.9
73	22.9	22.2	21.6	21.0	20.5	20.0	19.4	19.0	18.5
74	22.7	22.0	21.4	20.8	20.2	19.6	19.1	18.6	18.2
75	22.4	21.8	21.1	20.5	19.9	19.3	18.8	18.3	17.8
76	22.3	21.6	20.9	20.3	19.7	19.1	18.5	18.0	17.5
77	22.1	21.4	20.7	20.1	19.4	18.8	18.3	17.7	17.2

FREQUENTLY ASKED QUESTIONS

What should I do if I have a question about the calculations in this Decision Modeling Workbook?



You may call Educational Technologies, Inc. at (800) 227-0559 to speak with a counselor. You could also go to the Web site www.MPERAchoice.com and use the modeling software if you have difficulty with the manual calculations.

Why are my Workbook results different from my Modeling Software results?

Your answers may be different due to rounding. The factors in the Decision Modeling Workbook are rounded, whereas the factors in the software are precise. The two methods may also differ due to the assumptions used. You should check to make sure both projections use the same assumptions. Finally, life expectancy tables in the modeling software may differ slightly from those in the Workbook.

Where can I obtain more information?

There will be over 600 workshops conducted across the state of Montana from April 2002 through June of 2003. Go to the Web site www.MPERAchoice.com to find the workshop most convenient for you and your spouse, or call (800) 227-0559 to have a schedule faxed.

INSTRUCTIONS FOR CHOOSING APPROPRIATE ELECTION FORM

REMEMBER: Complete the form that pertains to your employment situation.

If you are a PERS member
and **NOT IN THE MONTANA UNIVERSITY SYSTEM:**

=>Use the election form **FORM-REG.**

If you are a PERS member
and **ARE IN THE MONTANA UNIVERSITY SYSTEM:**

=>Use the election form **FORM-MUS.**

Use the attached envelope to return your election form to MPERA.

RETIREMENT PLAN CHOICE - IRREVOCABLE ELECTION

Please print with ink or type

Name: (last) _____ / (first & middle initial) _____ / (previous last name) _____
Home Address: (street/p.o. box/rural route/etc.) _____ / (city) _____
Employing Agency or Agencies (list all) _____ / City _____

Social Security Number _____
(state) _____ (zip) _____
Mo _____ Day _____ Yr _____
Date of Birth _____

MPERA USE ONLY

Received: _____
Posted: _____
Confirmed: _____

YOU MUST ELECT ONLY ONE PLAN

DEFINED BENEFIT RETIREMENT PLAN (DBRP)

ELECTION: I choose to exercise my irrevocable election to remain in the PERS Defined Benefit Retirement Plan (DBRP).

Acknowledgement: I have had the opportunity to be educated about the retirement plan choices and assume complete responsibility for this irrevocable election. Once filed with the MPERA, I cannot change my election except as outlined below:

I understand that this decision means: (a) I remain a participant of the DBRP and am entitled to a retirement benefit from that plan when eligible; (b) I will remain a participant of the DBRP as long as I remain a member of PERS; and (c) I cannot become a participant of the DCRP unless I terminate employment in a PERS-covered position, terminate membership in PERS, and resume employment in a PERS-covered position twenty-four (24) or more months following termination of PERS membership.

Member Signature _____ Date _____

DEFINED CONTRIBUTION RETIREMENT PLAN (DCRP)

ELECTION: I choose to exercise my irrevocable election to join the PERS Defined Contribution Retirement Plan (DCRP).

Acknowledgement: I have had the opportunity to be educated about the retirement plan choices and assume complete responsibility for this irrevocable election. Once filed with the MPERA, I cannot change my election except as outlined below:

I understand that this decision means: (a) I am no longer a participant of the DBRP and I am not entitled to a retirement benefit from that plan; (b) I will remain a participant of the DCRP as long as I remain a member of PERS; and (c) I cannot become a participant of the DBRP unless I terminate employment in a PERS-covered position, terminate membership in PERS, and resume employment in a PERS-covered position twenty-four (24) or more months following termination of PERS membership.

I further understand that (a) my past contributions to the DBRP, a statutorily-defined percentage of my employer's past contributions to the DBRP, and 8% interest per annum on both will transfer to my account in the DCRP; (b) my retirement contributions and a statutorily-defined portion of my employer's future retirement contributions will be placed in my DCRP account; (c) administrative expenses will be deducted from my DCRP account; and d) I assume the risk of any losses as well as any gains resulting from my investments of my DCRP account.

Member Signature _____ Date _____

This election is not effective until the MPERA confirms your eligibility to make this election. The MPERA will send you a notice: a) confirming your election; b) informing you of additional action necessary before your election can be confirmed (FLOs, service purchase contracts); or c) that you are not eligible to make this election.

RETIREMENT PLAN CHOICE – IRREVOCABLE ELECTION**MONTANA UNIVERSITY SYSTEM EMPLOYEES ONLY**.....
Please print with ink or type_____/_____
Name: (last) (first & middle initial) (previous last name) Social Security Number
_____-_____-_____-_____-_____-_____-_____/_____
Home Address: (street/p.o. box/rural route/etc.) City State Zip_____/_____
Employing Agency or Agencies (list all) City Mo ____ Day ____ Yr ____
Date of Birth.....
As a Montana University System employee, you may have two decisions to make regarding your retirement plan.

Your first decision is whether:

- a) a defined benefit retirement plan; or
- b) a defined contribution retirement plan

is better for you.

If you decide a defined contribution retirement plan is better for you, you have a second decision to make. You must then elect either the:

- a) PERS Defined Contribution Retirement Plan; or
- b) Montana University System Optional Retirement Program (currently administered by TIAA-CREF)

Make your retirement plan election on the back of this sheet. Return your election to:

The Montana Public Employee Retirement Administration (MPERA)
PO Box 200131
Helena, MT 59602

DO NOT RETURN YOUR ELECTION TO CAMPUS PERSONNEL

Elections are not effective until the MPERA confirms your eligibility to make this election. Upon receipt of this Election Form, the MPERA will send you a notice: a) confirming your election; b) informing you of additional action necessary before your election can be confirmed (FLOs, service purchase contracts); or c) that you are not eligible to make this election.

MPERA USE ONLY:

Received: _____

Posted: _____

Confirmed: _____

FORM-MUS**YOU MUST ELECT ONLY ONE PLAN****DEFINED BENEFIT RETIREMENT PLAN (DBRP)**

ELECTION: I choose to exercise my **irrevocable** election to remain in the PERS Defined Benefit Retirement Plan (DBRP).

Acknowledgement: I have had the opportunity to be educated about the retirement plan choices and assume complete responsibility for this irrevocable election. Once filed with the MPERA, I cannot change my election except as outlined below:

I understand that this decision means: (a) I remain a participant of the DBRP and am entitled to a retirement benefit from that plan when eligible; (b) I will remain a participant of the DBRP as long as I remain a member of PERS; (c) I cannot become a participant of the DCRP unless I terminate employment in a PERS-covered position, terminate membership in PERS and resume employment in a PERS-covered position twenty-four (24) or more months following termination of PERS membership; and (d) I cannot become a participant of the ORP unless I terminate employment in a PERS-covered position, terminate membership in PERS and resume employment in a Montana University System PERS-covered position twenty-four (24) or more months following termination of PERS membership.

Member Signature

Date

PERS DEFINED CONTRIBUTION RETIREMENT PLAN (DCRP)

ELECTION: I choose to exercise my **irrevocable** election to join the PERS Defined Contribution Retirement Plan (DCRP).

Acknowledgement: I have had the opportunity to be educated about the retirement plan choices and assume complete responsibility for this irrevocable election. Once filed with the MPERA, I cannot change my election except as outlined below:

I understand that this decision means: (a) I am no longer a participant of the DBRP and I am not entitled to a retirement benefit from that plan; (b) I will remain a participant of the DCRP as long as I remain a member of PERS; (c) I cannot become a participant of the DBRP unless I terminate employment in a PERS-covered position, terminate membership in PERS and resume employment in a PERS-covered position twenty-four (24) or more months following termination of PERS membership; and (d) I cannot become a participant of the ORP unless I terminate employment in a PERS-covered position, terminate membership in PERS and resume employment in a Montana University System PERS-covered position twenty-four (24) or more months following termination of PERS membership.

I further understand that (a) my past contributions to the DBRP, a statutorily-defined percentage of my employer's past contributions to the DBRP, and 8% interest per annum on both will transfer to my account in the DCRP; (b) my retirement contributions and a statutorily-defined portion of my employer's future retirement contributions will be placed in my DCRP account; (c) administrative expenses will be deducted from my DCRP account; and (d) I assume the risk of any losses as well as any gains resulting from my investments of my DCRP account.

Member Signature

Date

MONTANA UNIVERSITY SYSTEM OPTIONAL RETIREMENT PROGRAM (ORP)

ELECTION: I choose to exercise my **irrevocable** election to join the Montana University System Optional Retirement Program (ORP).

Acknowledgement: I have had the opportunity to be educated about the retirement plan choices and assume complete responsibility for this irrevocable election. Once filed with the MPERA, I cannot change my election except as outlined below:

I understand that this decision means: (a) I am no longer a member of PERS and I am not entitled to a retirement benefit from PERS; (b) I will remain a participant of the ORP as long as I remain an employee of the Montana University System; and (c) I cannot become a member of PERS unless I terminate employment with the Montana University System and become employed in a non-Montana University System position that is PERS-covered.

I further understand that (a) my past contributions to the DBRP, a statutorily-defined percentage of my employer's past contributions to the DBRP, and 8% interest per annum on both will transfer to my account in the ORP; (b) my retirement contributions and a statutorily-defined portion of my employer's future retirement contributions will be placed in my ORP account; (c) administrative expenses will be deducted from my ORP account; and (d) I assume the risk of any losses as well as any gains resulting from my investments of my ORP account.

Member Signature

Date

 Please make sure that you have...

☒ Used the correct election form

☒ Made only one election

☒ Signed only one form

PLEASE ENCLOSE YOUR SIGNED ELECTION FORM

The Choice Is Yours, The Time Is Now!



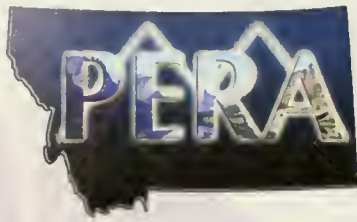
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DECISION MODELING WORKBOOK

The Decision Modeling Workbook is another tool in your Retirement Plan Choice materials to help you make your decision:

Defined Benefit Retirement Plan

Or

Defined Contribution Retirement Plan

An alternative to the modeling software, this Decision Modeling Workbook helps you to calculate various retirement income scenarios using different assumptions regarding your rate of salary increase, retirement date, investment rate of return and other variables.

The Investment Education section provides information that will help you make investment decisions with more confidence.

You are encouraged to use this workbook, along with the other tools, to make the best decision for your personal situation. MPERA, ETI and Great-West staff can also help you by providing additional resources:

- MPERA (877) 275-7372
- Educational Technologies, Inc. (800) 227-0559
- Great West (877) 699-4015



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